



*Borough of Worthing and
Rural District of East Preston.*

ANNUAL REPORT

ON THE

HEALTH,

Sanitary Condition, &c.

OF THE

Borough of Worthing and Rural District of East
Preston for the Year, 1909, and Medical Inspection
of School Children in Worthing,

BY

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HOSPITAL; MEDICAL OFFICER TO THE BOROUGH EDUCATION COMMITTEE;
BOROUGH METEOROLOGIST.

WORTHING :

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Borough of Worthing.

Sanitary, Baths and Burial Committee, 1909.

The Mayor (Councillor J. G. Denton, J.P.)

Alderman F. C. Linfield, J.P.,	Councillor G. Baker.
(Chairman).	„ R. Chignell.
„ E. C. Patching.	„ H. T. Duffield.
„ A. Cortis.	„ J. Gravett,
	„ T. Gray.

Town Clerk—W. Verrall.

Borough Surveyor—Frank Roberts, A.M.I.C.E.

STAFF OF THE HEALTH DEPARTMENT :

J. W. King, Assoc. R. San. Inst., *Chief Assistant Sanitary Inspector.*

F. H. French, Assoc. R. Sant. Inst., *Assistant Sanitary Inspector and Registrar of Meteorological Observatory.*

A. Day, *Clerk.*

Health Visitor and School Nurse—Miss Benson.

Matron of the Borough Isolation Hospital, Swandean—

Miss R. A. Hall.

Chief Sanitary Inspector—Charles T. Gardner, A.R.S.I.

Medical Officer of Health—R. Heywood Wilshaw, M.B., D.P.H.

CONTAGIOUS DISEASES ANIMALS ACTS.

Veterinary Inspector—Henry Smith, M.R.C.V.S., M.R.S.I.

Inspector—Superintendent W. Bridger.

Education Committee.

Alderman G. Ewen Smith (Chairman).

Councillor R. Chignell (Vice-Chairman).

Alderman A. Cortis.	Councillor Neale.
„ W. Walter.	„ G. Parsons.
Councillor C. C. Cook.	„ F. Tate.
„ H. T. Duffield.	Mr. F. J. Norman.
„ E. Ellis.	Rev. C. J. Hollis, M.A.
„ G. Gravett.	„ J. O. Parr, M.A.
„ J. Gravett.	„ J. Murgatroyd, B.A.
„ R. S. Larcombe.	Miss Barnet.
„ H. J. Milbank-Smith.	Mrs. Wright.

Secretary—W. Verrall (Town Clerk).

Assistant Clerk—E. A. Sparkes.

School Attendance Officers—C. Robinson and J. Wallis.



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Preface.

February, 1910.

To the Sanitary and Education Committees of the Worthing Town Council, and the East Preston Rural District Council.

GENTLEMEN,

I have pleasure in presenting to you my ~~second~~ annual report for the year 1909.

There are several gratifying facts to record, viz. :—

1. That our Death-rate when "corrected" is the lowest on record.
2. That our Infantile Mortality is also the lowest on record.
3. That our Zymotic Death-rate, which was the lowest on record last year (with the exception of one year) is still lower this year.

Other important developments have been the adoption of the Notification of Births Act, and the appointment of a nurse as Health Visitor and School Nurse. We also opened the new buildings at Swandean (Isolation Hospital), which have greatly added to the comfort of administration and the more efficient treatment of patients. The result of the medical inspection of school children shows clearly the wisdom of the procedure, and I hope ere long that we shall receive the sanction of the Board of Education to the modest scheme of treatment which has passed the Council.

A full report of the Meteorological Observations is also given, and it is satisfactory to note that we record more sunshine than the stations in the Isle of Wight, and are third in the country of towns over 10,000 population.

I note with satisfaction the formation of a strong Children's Care Society which renders us much practical help in the advice we give to mothers and the better feeding and clothing of necessitous school children.

I wish to acknowledge gratefully the support I have received from the Sanitary and Education Committees, and also from the members of the Sanitary staff, the matron and nurses at the hospital, the teachers in the schools and the other officials in the various departments.

I am, Gentlemen,
Yours obediently,

R. HEYWOOD WILSHAW.

Vital Statistics, 1909.

SUMMARY.

Area of Municipal Borough, excluding fore- shore... .. acres	2,627
Rateable Value on Poor Rate	£189,695
Assessable Value to General District Rate ...	£174,026
Estimated Population	27,200
Population at the 1901 Census	22,617
Persons per acre in the Borough	10·3
Average number of persons per house 1901 Census	4·9
Corrected death-rate	12·18
Average death-rate for previous ten years ...	14·5
Zymotic death-rate	0·44
Average zymotic death-rate for previous ten years	1·30
Birth-rate	19·0
Average birth-rate for previous ten years ...	19·8
Infant death-rate under one year, per 1,000 births	75
Infant death-rate average for previous ten years, per 1,000 births	118

*Physical Features and General Character of the District and General
Conditions of its Population.*

WORTHING is situated on the Coast of Sussex, 10 miles west of Brighton, and 61 miles south of London, in lat. $50^{\circ} 49'$ N. and Long. $0^{\circ} 22'$ W.

SITE AND SOIL.

The town is of a level nature, situated at the foot of the South Downs. These hills form a good protection from the North. The soil is of loam.

The town is essentially residential and therefore contains many detached and semi-detached houses and good thoroughfares, well planted with trees.

There are a large number of Boarding Schools for boys and girls.

The chief industry is fruit-growing, carried on in glass-houses, of which there are 35 miles.

At the time of the passing of the Public Health Act, 1875, Worthing was an Urban Sanitary District with a population of 8,096, the area then being 584 acres, and for parochial purposes was within the parish of Broadwater; an extension of the district was made in 1876, when 200 acres were included from Broadwater; a further extension was made in 1890 (West Worthing and the rural part of Heene), the added area being 426 acres, making a total of 1405 acres; the town was then incorporated and divided into 5 Wards, the population being 16,606 at the 1891 census. Further extension was made in 1902, and the Urban portions of the parish of Broadwater and West Tarring were added at this time, 656 acres from Broadwater, and 566 from West Tarring, making a total area of 2,627 acres. The town was then divided into 7 Wards, viz.: Selden, Central, Park, Victoria, Heene, Broadwater, and West Tarring.

VITAL STATISTICS.

POPULATION.

The Registrar-General estimates the population at the middle of 1909 as 26,306.

I estimate the population to be 27,200.

			Houses middle 1909,	
			Inhabited.	Uninhabited.
Selden	Ward...	...	1,227	46
Central	,, ...	...	1,186	53
Park	,, ...	...	738	23
Victoria	,, ...	...	750	29
Heene	,, ...	...	921	126
Broadwater	,, ...	...	828	88
West Tarring	,, ...	...	568	51
Totals			6,218	416

At the last census (1901) the number of persons per house was 4.9. In 1891 it was 5.5.

Taking the inhabited houses, 6,218, and allowing 4.3 persons per house, and adding one person for each uninhabited house, we get in round figures 27,200.

This is a higher figure than calculating by the Registrar-General's method of logarithms, but will I think be near the mark.

Assuming the *sex distribution* to have been the same in 1909 as it was at the census in 1901, the respective numbers of males and females in 1909 would be as follows:—

Males ... 11,275 Females ... 15,925

These figures shew the proportion of males to females to be as 100 males to 141 females, and an excess of females over males of 4,650.

The Borough Surveyor, Mr. Roberts, reports that the number of houses completed for occupation during 1909 was as follows:—

						1909.
Selder	Ward ...	...	...	...	...	36
Central	,, ...	...	...	...	...	5
Park	,, ...	...	...	...	...	6
Victoria	,, ...	...	...	...	...	3
Heene	,, ...	...	...	...	...	50
Broadwater	,, ...	...	...	...	...	43
West Tarring	,, ...	...	...	...	...	26
						169

The number of houses actually erected in 1908 was 176, and in 1909—200.

BIRTH AND DEATH RATES 1909.

	Annual Rate per 1,000 livng.				Deaths under one year to 1,000 Births.
	Birth Rate.	Death Rate.		Princip'l Epid'mc diseases.	
		Crude.	Correctd		
England and Wales...	25·6	14·5	14·5	1·12	109
76 Great Towns ...	25·7	14·7	15·6	1·42	118
143 Smaller Towns ...	24·8	13·9	14·5	1·08	111
England and Wales less the 219 Towns }	25·6	14·5	13·6	0·80	98
Worthing ...	19·0	13·2	12·18	0·44	75

BIRTHS.

The total number of births registered in the Borough during 1909 was 518, 260 males and 258 females.

This is equivalent to a birth rate of 19·0 per 1000 inhabitants. The average birth rate of the 143 smaller English towns was 24·8 per 1000.

Of the births 17 were illegitimate children forming 3 per cent. of the total births.

DEATHS.

The number of deaths registered during 1909 in Worthing was 360.

This is equivalent to a death rate of 13·2 per 1000 and when corrected by the factor 0·9231 (v. below) = 12·18.

This is the lowest death rate during the last ten years except 1903, when it was 12·6.

In addition there were belonging to Worthing 19 deaths in the East Preston Workhouse; 4 in the Asylum; 3 in Swandean Isolation Hospital. These, after making the necessary adjustments, give a death rate of 14·3 per 1000, and when corrected by the factor 0·9231 = 13·2.

The death rate of the 143 smaller English towns was 14·5 per 1000.

A comparison with Worthing in former years is given in Table 1. L.G.B.

The following tables have been carefully prepared in order to arrive at the factor for correction.

Ages.	Mean Annual Death Rate of Eng- land & Wales, 1891 —1900 per 1,000 living at each group of ages.		Population of Worthing in 1901 (extended Borough allowed for).		Calculated number of deaths in Worthing.	
	Males.	Females.	Males.	Females.	Males.	Females.
Under 5	62.7	52.8	1027	1002	64.4	52.9
5	4.3	4.4	956	953	4.1	4.2
10	2.4	2.6	1092	1149	2.6	3.0
15	3.8	3.7	929	1435	3.5	4.3
20	5.1	4.5	851	1479	4.3	6.6
25	6.8	6.1	1270	2060	8.6	12.5
35	11.5	9.6	1095	1713	12.6	16.4
45	19.0	14.8	860	1430	16.3	21.2
55	35.0	28.5	676	1075	23.6	30.6
65	70.4	60.7	395	650	28.0	39.4
75	146.1	130.6	169	268	24.7	35.0
85	286.8	261.4	34	49	9.7	12.8
upwards			9354	13263	202.4	238.9
			22617		441.3	

The standard death rate for Worthing is $\frac{441.3 \times 1000}{22617} = 19.51$.

The annual death rate for England and Wales 1891—1900 is 18.21.

The factor for correction for Worthing is $\frac{18.21}{19.51} = 0.9231$.

INFANTILE MORTALITY.

The deaths of infants under one year of age were 39 ; which is equivalent to a mortality of 75 per 1000 births. This is the lowest on record.

There were 17 births of illegitimate children and of these 4 died under one year.

Stated in terms of births this implies that the infantile mortality among illegitimate babies is 235 as compared with 70 per 1000 among babies born in wedlock.

The chief causes of Infantile Mortality are given in Table V., L.G.B., and in the following table (page 14).

The Notification of Births Act 1907 was adopted by the Worthing Corporation during the year and came into force on August 19th, 1909.

Under this Act medical men, midwives and parents are called upon to notify to the Medical Officer of Health within 36 hours after the event, the births of all children attended by them.

The information so obtained will be of considerable value in the way of preventing early deaths of infants, as under the present method of registration of births, a period of six weeks or more after a birth, may elapse before knowledge of that birth is obtained by us.

By the early information thus obtained of the birth, under the new Act, Nurse Benson will be so much the earlier enabled to render advice and practical assistance.

The formation of a strong Children's Care Society has been an event of great importance to the town.

This Society is rendering valuable help to mothers and infants.

I find that Diarrhœa and Enteritis carry off a large number of infants and this is one of the chief points of attack we ought to make to reduce our infant mortality.

I advise therefore:—

1. Cleanliness as a first principle.
2. Keep dust and flies from contaminating milk.
3. Give pure raw milk simply diluted with water and *not* boiled, pasteurized or sterilized
4. I deprecate the use of ordinary sugar, milk preservatives and adding barley water or lime water, especially in hot weather.

If milk is boiled and these things added, it makes an excellent nutritive medium for putrefactive organisms conveyed by the dust and flies in hot weather, and prevents the growth of the lactic acid bacilli (which depend upon the presence of lactose), which are intended as a means of defence for our constitutions. — — —

Ordinary sour milk is far less harmful than milk "doctored" as mentioned above. The sour smell, which is due to the formation of lactic acid in milk, in hot weather, is a natural danger signal, indicating that it is not sufficiently fresh. The fundamental character of this reaction is that it entirely prevents any changes occurring in milk of a poisonous character.

The organisms responsible for the production of zymotic enteritis are universally distributed.

They exist in the mouth of every healthy infant. They are the ordinary organisms of putrefaction, but they cannot attack milk in its natural state.

5. Diluted condensed milk is probably the agent responsible for the disease in its most fatal and devastating form. Here every condition has been fulfilled that the putrefactive organisms may acquire their fullest activity.

The condensed milk when diluted contains so minute an amount of lactose as to render it a negligible quantity.

The lactic organisms have been entirely destroyed and putrefactive changes are the only changes that can occur.

Boiling milk effectually destroys the lactic organisms but makes no impression on the spores of putrefying bacteria.

Much higher temperatures and longer exposures are required to kill these.

It is the condition of the milk *after* boiling that constitutes the critical and imminent danger to the infant.

The simple fact is that if a bacteriologist were asked to state the measures necessary to convert a safe milk into one which is a virulent poison, he could not greatly or essentially improve upon the method as carried out by the mothers of the poorer classes at a time when the temperature is 80° F. in the shade and dust and flies are everywhere.

Let it be remembered that the putrefying organisms do not directly produce the disease, but that their action is entirely upon the milk either inside or outside the infant. They create virulent chemical poisons which produce the toxæmia characteristic of zymotic enteritis.

The fundamental characteristic of natural food of the infant is that it is a raw fluid.

In all circumstances the cooking of the milk for infants gravely impairs its nutritive value.

No serious amelioration of zymotic diarrhœa can be anticipated until the fullest protection of pure raw milk is secured for every infant, and special precautions must be taken at times when heat and dust are prevalent to secure that the milk for the use of infants shall be preserved *fresh* and *unboiled*.

I cannot claim originality for the above views although I have for some time held them, but recently Dr. Vincent, Senior Physician to the Infants' Hospital, Westminster, has very ably advocated them, and I wish to further them, believing that if acted upon we can reduce the Infantile Mortality at that point where prevention can do so much.

I consider that the Infantile Mortality of Worthing, which is 118 on the average for the last ten years, is much too high. I should say that an infantile mortality of 80 is practically unavoidable, so that we have a margin of 38, which ought to be considerably lessened. When looked at in detail, the returns for Worthing for 1905-9 show that 91 infants out of 255 who died, died in the first month of their existence, and 52 out of 255 died in the first week. There are roughly

100,000 lives sacrificed in some form or other every year, not to man's inhumanity, but to neglect, carelessness, foolishness or ignorance, and it is sad to know that there are as many deaths in one year in the first year of age, as there are in the succeeding 18. During the last 15 years, the general birth-rate has dropped from 34 to 26 per 1000, still the infantile mortality has remained stationary or has only very slowly declined.

It is a well-known fact that, in the poorest quarters of our cities, where the Jews live under the same conditions as our own people, their Infantile Mortality death-rate is barely one-fourth of ours, the reason being that the Jewish mother nurses her own child and sees that on no account does it go without food and nourishment, and that proper care is being bestowed upon it. In some places sterilized municipal milk depots have been established, and much good has resulted therefrom.

INFANTILE MORTALITY.

Return of Deaths from stated causes in years 1903, 1904, 1905, 1906, 1907, 1908, and 1909 under 1 year of age.

Cause of Death.	1903	1904	1905	1906	1907	1908	1909	Total.
Measles ..	—	—	—	—	1	—	—	1
Diphtheria (including Mem- branous Croup) ...	—	1	—	—	—	—	—	1
Croup ...	—	1	—	—	—	—	—	1
Whooping Cough ...	—	1	2	—	—	3	—	6
Diarrhœa all forms ...	1	13	1	6	7	5	3	36
Enteritis Gastro Enteritis...	2	—	—	16	3	6	4	31
„ (not tuberculous)	—	—	4	—	—	—	—	4
Gastritis Gastro intestinal Catarrh ...	—	—	1	5	—	2	—	8
Premature Birth ...	10	5	9	12	8	9	6	59
Congenital Defects ...	—	—	—	1	2	2	3	8
Diseases and accidents of Parturition ...	—	1	—	—	—	—	—	1
Injury at Birth ...	—	—	—	2	2	2	—	6
Accident ...	—	1	—	—	—	—	—	1
Respiratory Organs ...	1	—	—	—	—	—	—	1
Atrophy, Debility, Marasmus ...	—	—	12	7	12	4	6	41
Tuberculous Meningitis ...	—	—	1	—	3	—	1	5
Tabes Mesenterica ...	—	—	—	—	1	1	—	2
Other tuberculous Diseases	3	2	1	—	—	1	1	8
Cancer Malignant Diseases	—	1	—	—	—	—	—	1
Syphilis ...	—	—	1	—	—	—	—	1
Rickets ...	—	—	—	3	—	—	—	3
Meningitis (not tuberculous)	—	—	—	—	1	2	—	3
Convulsions ...	—	—	1	4	3	2	—	10
Bronchitis ...	5	2	1	—	5	3	—	16
Laryngitis ...	—	—	1	—	1	—	—	2
Pneumonia ...	1	2	5	2	3	7	7	27
Suffocation overlying	—	—	1	2	1	2	—	6
Phthisis ..	—	1	—	—	—	—	—	1
Pleurisy ...	—	1	—	—	—	—	—	1
Other Causes ...	28	18	2	1	1	7	8	65
Total ...	51	50	43	61	54	58	39	356
Rate per 1000 Births ...	102	109	83	116	106	109	75	100
Total No. of Births ...	501	457	520	517	509	531	518	3553

Shewing the number of DEATHS from the seven principal Zymotic diseases in the ten years, 1899—1908, and in 1909.

	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	Average 10 years.	1909
Estimated Population.	19400	19700	20015	20450	23750	24218	24720	25262	25800	2660	22999	27200
Small Pox	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	...	...	...	1	...	...	...	...	...	1	0.2	...
Diphtheria	6	48	22	5	1	6	4	14	4	6	11.6	3
Enteric Fever	1	2	...	4	2	...	1	1	1	1	1.3	...
Measles	...	...	6	...	...	8	...	2	3	...	1.9	...
Whooping Cough	1	1	4	4	...	1	4	...	3	5	2.3	2
Diarrhoea	16	17	15	8	5	13	8	29	11	5	12.7	7
Total	24	68	47	22	8	28	17	46	22	18	30.0	12
Zymotic death rate per 1000 living.	1.23	3.45	2.34	1.07	0.33	1.15	0.68	1.81	0.85	0.67	1.30	0.44

ZYMOTIC MORTALITY.

There were 12 deaths from the seven principal zymotic diseases.

Small-pox	...	...	...	...	...	0
Measles	...	...	...	...	...	0
Scarlet Fever	...	...	...	...	...	0
Whooping Cough	...	...	...	...	...	2
Diphtheria	...	...	...	...	...	3
Enteric Fever	..	...	...	...	...	0
Diarrhœa	...	...	...	...	...	7
						—
						12
						—

The Zymotic death rate is thus 0·44, and with the exception of 1903, this is the lowest for the last ten years, as seen from the table on page 15.

The Zymotic death rate for England and Wales amongst the 143 smaller towns for 1909 was 1·08.

While the best statistical evidence of the health of a community is furnished by the corrected death rate; the Zymotic death rate, the Infantile Mortality of infants under 1, and children under 5 years of age afford very positive evidence of the sanitary condition of a community.

THE HOUSING OF THE WORKING CLASSES ACTS.

House accommodation for the working classes is improving.

A good class modern sanitary house is being built with a good amount of open space both in front and behind.

The Council have a Building Inspector under the direction of the Borough Surveyor who supervises the erection of all houses and new buildings under the bye-laws.

Under Part 1 of the Housing of the Working Classes Act re unhealthy areas no action is needed.

PART 2.—UNHEALTHY OR OBSTRUCTIVE DWELLINGS.

Representations were made to the Sanitary Committee in 1909 as follows and the result is given below :

No. 2 North Street was unfit for human habitation. A closing order was obtained and negotiations have since been in progress for the conversion of these premises to a lock-up shop.

With reference to Navarino Cottage and Nos. 1 and 2 Navarino Cottages, Ham Road, referred to in 1908, these cottages have been demolished.

Part 3.—No action taken re working class lodging houses.

WATER SUPPLY.

The water undertaking belongs to the Corporation. The source is from deep wells in the chalk at the foot of the Downs.

It is an ample supply, and though rather hard, of exceptional purity, as shown by the following chemical and bacteriological analyses.

“St. Bartholomew’s Hospital and College.
Chemical Laboratory,
21st April, 1908.

Report on sample of water

Received from Dr. Klein, F.R.S., 13th April, 1908, labelled:—

“WORTHING CORPORATION WATERWORKS.”

Sample of Water taken from Reservoir. 8 a.m., 13th April, 1908.

On analysis the water gave the following results, the figures are

parts in 100,000 parts of the water:—

Free and saline ammonia	less than	...	...	0.001
Albuminoid ammonia	...	...	...	0.013
Oxygen absorbed in 3 hours at 20° C.	...	...	...	0.030
Chlorine	...	...	...	2.300
Nitrates (expressed as Nitrogen)	...	...	...	0.400
Nitrites	...	...	...	0.000
Hardness.				
(a) Total	...	...	...	20.950
(b) After boiling	...	...	...	4.000
Alkalinity expressed as calcium carbonate	...	...	...	19.375
Total solids	...	...	...	30.080
(a) Fixed	...	...	...	24.280
(b) Volatile	...	...	...	5.800

There was a minute trace of phosphate and a trace only of sulphate.

There was no trace of a poisonous metal.

The results show that chemically the water is excellent and quite suitable for any purpose. The albuminoid ammonia is slightly over what is a very common allowance (0.008), but from the way in which the constituent distils off and from the fact that on ignition of the total solids the slight charring that occurs almost instantly vanishes, I attribute this to a perfectly harmless trace of impurity of vegetable origin.

The figure for the hardness after boiling and that for the alkalinity show that the hardness is all temporary, that is it would be removed by boiling.

(Signed) W. H. HURTLEY.”

“REPORT ON SAMPLE OF WATER FROM THE CORPORATION WATERWORKS AT BROADWATER.

The sample was labelled:—“Water from the new well at Corporation Waterworks, Broadwater, Worthing. Taken 8.30 a.m., Friday, October 23rd, 1908.”

The Water was quite clear and on standing deposited no sediment.

The analysis shewed:—

- (a) The water contained 32 bacteria per 1 CC.
- (b) The water contained no *B coli communis*, per 100 CC.
- (c) The water contained no *B coli* of any kind per 10 CC.
- (d) The water contained no enteritidis spores per 100 CC.

From this it follows that the water is of a satisfactory bacterial quality.

(Signed) E. KLEIN.”

St. Bartholomew's Hospital
and College, London.

October 26th, 1908.

MILK SUPPLY.

Most of the milk is imported from the agricultural districts in the immediate neighbourhood. Four samples were taken and two proved to be genuine and two not so (v. Report under Food and Drugs Act).

SEWERAGE AND DRAINAGE.

This is a water-carriage system by gravitation to the sewage works situated at the eastern end of the borough, where the sewage is lifted into storage tanks from which the sewage discharges by gravitation into the sea, twice each day, from one hour after high water.

The sewers are well laid, well flushed and efficiently ventilated by air shafts.

The system of house drains is modern and intercepting chambers are provided. Great attention is paid to the efficient working of the whole system.

HOUSE REFUSE.

Movable dust bins are used at each house and the refuse collected twice weekly by the Surveyor's department, and cremated at the Refuse Destructor.

This destructor has two cells and is of the Heenan and Frowde type and works very satisfactorily.

All refuse is burned within 24 hours of collection, and the steam generated by the burning of the refuse is used for working the sewage pumps.

PUBLIC HEALTH ACTS AMENDMENT ACT, 1907.

This Act, which is an adoptive one, contains many useful powers in connection with sanitary and public health matters and has been adopted by the Council, and will come into force in February, 1910.

COWSHEDS.

There are now eight Cowsheds within the Borough which have been regularly visited during the year, one having ceased to be used because it was unfit.

DAIRIES AND MILKSHOPS.

The 34 registered purveyors of milk have received the attention as found necessary.

Where application is made for registration the applicant is required to submit a plan of his proposed milk store, also shewing the facilities for washing and cleansing the dairy utensils.

The Dairies have received in the past much attention with the result that the majority are in excellent sanitary condition.

SLAUGHTERHOUSES.

Of the eight slaughterhouses, seven are registered and one is licensed annually.

At three—more than one butcher slaughters. The premises in West Street are somewhat crowded, and in Broadwater Street the present accommodation is only just sufficient; but there is ample room at the one in South Street, West Tarring, for twice the amount of slaughtering to be carried on.

On each occasion where the owners were called upon to carry out repairs, the work was done.

Frequent inspection was made at each of these premises for examination of the carcasses, and where any disease was found the organs were surrendered and destroyed, details of which are given under food inspection. In other cases our opinion was voluntarily sought and given.

BAKEHOUSES.

There are thirty-seven registered bakehouses in the district, none of which are underground, and have been well kept.

One old bakehouse situated at rear of 75, Portland Road, was repaired.

FOOD INSPECTION.

The slaughterhouses, various food shops, fish market on beach, and other places where food is exposed or in preparation for sale have been frequently inspected and only on one occasion was it found necessary to seize any food which was unfit for human consumption, viz., 1 box of mackerel on the fish market. The vendor was cautioned. Small quantities of unsound meat were submitted for inspection by various tradesmen and certificates given, and the articles destroyed at the Destructor Works as follows:—

		Decomposed.		Tuberculosis.
Beef	... ..	710 lbs.	...	—
Trimnings	... ..	235 „	...	—
Suet	... ..	36 „	...	—
Ox Livers	... ..	5	...	—
Bullock Hearts	... ..	8	...	—
Rock Salmon	... ..	1	...	—
Whiting	... ..	2½ cwt.	...	—
Mackerel	... ..	196	...	—
„ (seized)	... ..	66	...	—
Bullocks	... ..	...	...	2
Pigs	... ..	...	...	2
Bullock's head, lungs, liver and skirt	...			1

Food inspection is one of the most important duties performed by the Health Department, and it is satisfactory to record that Mr. King, one of the Assistant Inspectors, has succeeded in obtaining the certificate of the Royal Sanitary Institute as an inspector of meats and other foods, so that now all three Sanitary Inspectors possess this extra qualification.

SALE OF FOOD AND DRUGS ACTS.

The Police under the County authority administer these Acts.

A return of samples taken and submitted by Supt. Bridger for the County Council of West-Sussex shews that sixteen in all were taken as follows:—

	No.	Genuine.	Not.	Prosecutions.	Convictions.
New Milk	4	2	2	1	Fined £2 0 0
Cream	2	2	—	—	—
Golden Syrup	8	8	—	—	—
Gin	1	1	—	—	—
Whisky	1	1	—	—	—
	—	—	—	—	—
Total	16	14	2	1	—
	—	—	—	—	—

I consider that at least 80 Samples per year ought to be taken for a town of this size. The Board of Agriculture recommend 3 per 1000 population.

INFECTIOUS DISEASES HOSPITAL.

This is at Swandean in the Parish of Durrington, situated on the Downs $3\frac{1}{2}$ miles north-west of the town. Originally this was a private residence standing in 7 acres of ground, to which another 5 acres have since been added. Having become inadequate an isolation pavilion was built as part of a larger scheme, so that better isolation of patients from the different infectious diseases could be obtained.

During the previous year a Local Government Board enquiry was held by Dr. Manby and sanction obtained to borrow money in order to build two additional and larger pavilions, on condition that Swandean house be used in future for administrative purposes only. These have been completed and opened during 1909, and are now in use.

A new Laundry, Disinfector of Washington Lyon's type, and Mortuary complete the premises.

The total accommodation is now 32 beds. An additional 4 beds to each of the two new blocks was added by extending the buildings, it having been foreseen that this would be necessary to meet the growing development of the town, and furthermore that enough money had been saved on the contract to build one and enough left over from the amount sanctioned to be borrowed, to build the other.

We can now treat Scarlet Fever, Diphtheria and Typhoid Fever separately at one and the same time.

It will still be necessary for buildings to be erected for the separation of the convalescing patients from the acute cases.

This is a principle of treatment much to be desired, as it has been found that catarrhal conditions, ear discharges, and kidney complications are more frequent in the convalescents, when they are kept in the 'concentrated' atmosphere of the acute cases.

The sewage of the Hospital is efficiently dealt with by means of a small installation of bacterial filter beds.

The water supply is from the Corporation Waterworks.

No isolation is available for small-pox patients, and the erection of a small iron building is desirable.

Length of stay of cases :

Disease.	Cases.	Total No. of Days	Average stay of each case.	Average stay of whole of cases.
Diphtheria ...	42	1072	25	} 38½ days.
Scarlet Fever ...	113	4863	43	
Enteric ...	1	61	61	
Erysipelas ...	1	43	43	

The following are the cases with the longest stay in hospital :—

Scarlet.	Diphtheria.
103 days.	80 days.
80 „	50 „
73 „	35 „
70 „	34 „
65 „	

SWANDEAN EXPENDITURE.

	Jan.-Dec. 1907.	Jan.-Dec. 1908.	Jan.-Dec. 1909.
MAINTENANCE :	£	£	£
Provisions	318	359	406
Drugs, Antitoxin, Instruments, etc.	48	41	59
Coal (Hospital and disinfector)	68	89	105
Oil	15	14	19
Laundry and Cleaning requisites	23	27	29
Garden expenses	4	4	5
Miscellaneous	27	19	24
SALARIES AND WAGES :			
Medical Officer	134	110	113
Matron and Nurse and Uniforms	180	191	216
Outside Nurses	64	31	12
Domestic Staff	100	92	116
Repairs to Building	223	60	23
Removal of Patients and Cab hire	67	64	45
Furniture	21	15	128
	£1,293	£1,116	£1,300
Number of Patients (including East Preston)	104	111	157
Average stay in Hospital (days)	39·2	39·4	37·7
Provisions (cost per day) ...	11.6d.	12.6d.	10.8d.
Maintenance cost during whole length of stay ...	£9 16s. 3d.	£9 1s. 6d.	£7 os. od.

NOTIFICATION.

The Infectious Disease (Notification) Act, 1889, came into force August 3rd, 1890, and the Infectious Disease (Prevention) Act, 1890, came into operation on July 4th, 1891.

DISINFECTION.

This is carried out after cases of infectious disease and also after cases of Consumption and Cancer where application is made.

The Council undertake the disinfection of all articles and houses after non-notifiable infectious diseases and the fees received by the Town Clerk for such disinfection were £4 14s. 10d.

The cost of disinfectants, fumigating material and appliances was £20 10s. 4d.

TUBERCULOSIS.

No system of notification is in force other than for poor-law cases.

In some places voluntary notification of Pulmonary Tuberculosis has been adopted, but as far as I can gather little use is made of it, and not until it is made compulsorily notifiable, is any real benefit likely to accrue.

On January 1st, 1909, the Public Health (Tuberculosis) 1908 Regulations made by the Local Government Board came into force.

These regulations make it compulsory on Poor-law Medical Officers and Superintendents of Poor-law Institutions to notify to the Medical Officer of Health all cases coming under their charge and only applies to poor persons.

There were 15 persons notified under the Regulations as suffering from Pulmonary Tuberculosis. One was a poor person from outside the district.

Careful enquiries were made into each case and advice given on the lines suggested by the Chief Medical Officer of the Local Government Board.

Five of the 15 cases notified died during the year.

In each case the room and clothing was disinfected.

In view of the benefits derived by the isolation and education of persons suffering from Tubercular disease of the lungs (Phthisis) or consumption, a disease of an infectious character, the community as a whole would be the gainer if Municipalities were to make compulsorily notifiable this disease and treat such cases in special pavilions on the open air system, as carried out at Brighton.

NOTIFIABLE DISEASES.

Diseases Notified in each month during 1909.

Month.	Scarlet Fever	Diphtheria	Enteric Fever	Puerperal Fever	Erysipelas	Small Pox	Totals.
January ...	21	11	1	—	1	—	34
February ...	13	11	—	—	2	—	26
March ...	12	1	1	—	—	—	14
April ...	9	4	1	—	—	—	14
May ...	2	1	—	—	—	—	3
June ...	7	—	1	1	1	—	10
July ...	7	9	—	1	—	—	17
August ..	10	5	—	—	—	—	15
September ...	12	1	1	—	3	—	17
October ...	8	3	—	—	—	—	11
November ...	7	2	2	—	1	—	12
December ...	10	4	—	—	1	—	15
The 12 months Totals...	118	52	7	2	9	—	188
Total No. treated in Hospital...	92	38	1	—	1	—	132
Total Deaths Registered...	—	3	—	—	—	—	3

INCIDENCE OF DISEASE.

The number of notifications during 1909 was 188.

Scarlet Fever	...	...	...	118
Diphtheria	...	...	...	52
Typhoid Fever	...	...	...	7
Puerperal	...	...	...	2
Erysipelas	...	...	...	9

SCARLET FEVER.

Of the 118 notified, 92 were removed to Swandean Isolation Hospital, and all recovered.

The disease was never epidemic and was fairly evenly distributed throughout the different Wards of the town (v. Table III. L.G.B.).

This table also shews that of the 118 cases, 76 occurred in children of school age. More adults than usual seemed to contract this disease.

Two "Return" cases were notified.

Relapse after Returning Home.

One interesting case was discharged from Hospital after being detained 39 days and passing through a typical attack of Scarlet Fever with nephritis and peeling. One day after going home the case had a relapse and went through another attack.

These relapsing cases are very interesting, and it is quite certain they can occur.

Several other typical and certain cases, during the year, either came in peeling and had a relapse, or had a second attack within two or three weeks after being admitted with the usual typical onset.

As regards the onset of relapses Pfaundler and Schossman state that they have occurred on the 18th, 21st, 22nd, 23rd, 26th, 29th, 32nd, 37th, and 39th days after the initial attack, but that they have not seen them later. The above case was certainly the 40th day, and Dr. Newsholme, when Medical Officer of Health of Brighton, quoted cases very similar in his Annual Reports for 1906 and 1907, which shewed the relapses as occurring on the 44th days. It is interesting to theorise about such cases, and the two theories are:—

1. Auto-infection. We get analagous cases in Typhoid. These generally (in cases of Scarlet Fever) occur between the 7th and 24th days and explain the bulk of relapses.

2. New accession of poison from without.

It is evident in either case that complete immunity cannot be guaranteed.

Thomas describes pseudo-relapses in which a roseolous eruption breaks out after the fever has run its course.

Osler believes them to be acute exfoliating dermatitis.

Goodhart and Still mention them in their book as rare.

Goodhall says they occur 0·7%.

Holt (Diseases of Children) says they may occur 7-24 days after the initial attack.

DIPHTHERIA.

52 cases were notified, 38 of which were removed to Swandean. Three of the 52 cases were fatal, and died of sudden cardiac paralysis. These were bad cases and had had the disease three or four days before admission. Two cases of Tracheotomy were performed,

One case recovered and the other died. It has been abundantly proved by the following statistics from the Brook Hospital of the Metropolitan Asylum's Board as reported by the Registrar-General in his 70th Annual Report for the year 1907, that the beneficial results of the antitoxin treatment of this disease varies according to the day of the disease on which the treatment begins thus:

From 1897-1907, cases treated 1st day	250	death	0.00%
„ „ 2nd „	1515	„	4.29%
„ „ 3rd „	1690	„	11.24%
„ „ 4th „	1338	„	16.89%
„ „ 5th & onwards	1765	„	18.58%

Of the 52 cases, 35 occurred in school children between the ages of 5—15. No return cases occurred.

From Table III. at the end of the report it will be observed that 111 cases out of the 170 (Diphtheria and Scarlet Fever combined) occurred in school children between the ages of 5—15.

ENTERIC FEVER.

Seven cases were notified, one of which was removed to Swan-dean.

The first case, notified on January 12th, was found to have been infected by eating mussels from a polluted source at Shoreham.

A quantity of mussels from the Shoreham beds were subsequently purchased and forwarded to the Clinical Research Association, and the report is given herewith, shewing abundant evidence of sewage pollution.

“The Clinical Research Association, Limited.

“Watergate House,

“Adelphi, London, W.C.,

“18.1.09.

“*Laboratory Report.*

“The preliminary results obtained from the examination of these mussels afford presumptive evidence of grave pollution with sewage. The final report will be sent as soon as the examination is completed.”

“The Clinical Research Association, Limited.

“Watergate House,

“Adelphi, London, W.C.,

“21.1.09.

“*Laboratory Report.*

“Of the sample of mussels 10 were taken for examination, the object being to determine to what extent sewage bacteria were to be found.

"The shell-fish were opened with the strictest aseptic precautions, the liquor contained in the shells was poured into a sterile measuring cylinder, and the bodies were snipped up with sterile scissors and added to the liquor in the cylinder. The total volume now amounted to 102 cubic centimetres, so it will be sufficiently accurate to regard the average measurement of the contents of each shell as amounting to 10 cubic centimetres. The whole was now made up with sterile water to 500 c.c. and thoroughly shaken, and fractional portions of the mixed liquid were taken for cultivation.

"The organisms employed as a test for sewage pollution were the *Bacillus Coli Communis*, *Streptococci* and *The Bacillus Enteritidis Sporogenes*.

"Direct evidence of the Typhoid bacillus could not be obtained.

"The results of the examination have been tabulated, as follows:

"The sign ' + ' in the above table indicates that the organism was present, while ' — ' indicates that it was absent.

These figures indicate that Colon Bacilli and *Streptococci* were present to the extent of between 10,000 and 100,000 per mussel, while the *Bacillus Enteritidis Sporogenes* was present to the extent of between 100 and 1000 spores per mussel.

"The Colon Bacillus, even in the smallest quantity of fluid from which it was obtained, had all the cultural characters of the organism as it occurs in human fæces.

"As each mussel with its liquor measured 10 cubic centimetres, the number of organisms per c.c. of mussel may be determined by dividing the above figures by 10.

"It is evident that the results of the examination point to the grossest degree of pollution with sewage.

"C. H. WELLS,
"Sec."

Warning was given to the public by means of notices posted about the district and men dealing in these mussels were cautioned against bringing them into the town. A copy of the warning notice is given.

"Borough of Worthing.

"Notice and Caution.

"The public are warned against eating Mussels and Cockles brought into the town from polluted sources. Serious illness may be caused by neglecting this warning.

"R. HEYWOOD WILSHAW,
"Medical Officer of Health."

Of the other six cases of Typhoid 4 were undoubtedly imported, 2 on returning from India, 1 from shell-fish at Chichester, and 1 from a visit to another county. The other two were so mild as almost to be unrecognised.

PUERPERAL FEVER.

Two cases were notified and no death was registered.

The administration of the Midwives Act is carried out by the West Sussex County Council.

The following table shews the notifications of the notifiable diseases for the last 10 years:---

Year.	Scarlet Fever.	Diphtheria.	Enteric.	Other Infectious Diseases.	Total.
1900	69	215	10	9	303
1901	33	99	6	5	143
1902	25	31	9	7	72
1903	25	17	5	11	58
1904	36	31	9	12	88
1905	47	55	15	11	128
1906	51	66	5	19	141
1907	58	48	6	14	126
1908	108	30	8	14	160
1909	118	52	7	11	188

The following table shews the number of cases of infectious disease treated and the number of deaths which occurred at Swan-dean for the last 10 years.

Cases of Infectious Disease treated in the Borough Infectious Disease Hospital Swandean during the last
10 years 1900 to 1909,

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	Total for the 10 years 1900—1909.	Case Mortality for each disease of cases treated in Hospital during the 10 years 1900—1909.	Case Mortality of cases treated at their own homes during the 10 years 1900—1909. *
Scarlet Fever ...	46	14	7	12	23	30	40	47	75	92	386		
Smallpox ...	—	2	1	1	3	—	—	—	—	—	7		
Diphtheria ...	74	36	13	8	8	36	57	43	22	38	335		
Enteric Fever ...	—	—	1	1	1	12	—	3	6	1	25		
Erysipelas ...	—	1	—	—	—	1	3	—	1	1	7		
Puerperal Fever ...	—	—	—	—	—	1	1	—	—	—	2		
Totals ...	120	53	22	22	35	80	101	93	104	132	762		
Deaths occurred amongst the above cases as follows :													
Scarlet Fever ...	1	—	—	—	—	—	—	—	1	—	2	.63 p.c.	—
Smallpox ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria ...	15	10	1	1	1	3	9	2	5	3	50	14.3 "	20.0 p.c.
Enteric Fever ...	—	—	—	—	—	—	—	1	1	—	2	8.0 "	18.1 "
Erysipelas ...	—	—	—	—	—	—	—	—	—	—	—		2.6 "
Puerperal Fever ...	—	—	—	—	—	—	—	—	—	—	—		54.5 "
Totals ...	16	10	1	1	1	3	9	9	7	3	54		

* Obtained by deducting the notifications and deaths of cases treated in the Borough Hospital, Swandean from the total notifications and deaths of cases of infectious diseases in whole Borough as shown in table on page 24.

OTHER DISEASES.

No cases of Small-pox occurred.

There were no outbreaks of Measles, Chicken-pox or Whooping Cough.

From Table IV., L.G.B., it will be seen that there were no deaths from Measles and only two from Whooping Cough. It further shows that 31 persons died from Phthisis, 14 from other Tubercular diseases, that 33 died from Cancer, 9 from Diarrhœa and Enteritis, 20 from Influenza, 24 from Bronchitis, 23 from Pneumonia, and 34 from Heart Disease.

 CONSUMPTION AND CANCER.

The following table shews the number of deaths from Phthisis and Cancer for the past 10 years.

Year.	No. of Deaths from Phthisis.	No. of Deaths from other Tubercular Diseases.	No. of Deaths from all forms of Cancer
1900	18	17	17
1901	22	19	13
1902	22	18	20
1903	13	13	31
1904	31	17	37
1905	27	8	32
1906	37	7	37
1907	27	13	35
1908	28	9	47
1909	31	14	33

INQUESTS, 1909.

Inquests were held in nineteen cases.

Month.	Sex.	Age. Years.	Cause of Death.
February	F	51	Suicide by drinking carbolic acid.
"	F	44	Attack of Angina due to heart failure.
March	M	73	Concussion of brain from accidental fall.
April	M	56	Suicide by strangulation.
"	M	25	Accidentally killed by being run over by a motor bus.
May	F	82	Fractured thigh sustained by a fall.
"	M	66	Accidental fall while suffering from an epileptic fit.
"	M	74	Heart disease.
June	M	73	Syncope following a heavy meal.
"	F	10	Meningitis arising from accidental blow on head.
"	M	52	Suicide by cutting his throat.
July	F	42	Cerebral hæmorrhage following injuries to head. Manslaughter.
September	M	49	Suicide by placing himself in front of train.
"	F	39	Hæmorrhage of lungs.
"	M	20	Effects of a bullet wound.
"	M	31	Syncope due to heart disease.
October	M	5 wks.	Exhaustion due to Atelectasis.
"	M	69	Heart failure from shock due to drinking caustic soda solution by misadventure.
November	M	6 hrs.	Imperfect expansion of lungs.

SYSTEMATIC INSPECTIONS.

Systematic Inspections were made by myself and the Chief Sanitary Inspector, of the slaughterhouses, bakehouses, dairies and cowsheds, and many of the oldest houses which require to be dealt with under the Housing of the Working Classes Act.

*Report of the Chief Sanitary Inspector for the year ending
31st December, 1909.*

The usual systematic inspection and routine work in connection with the common Lodging Houses, eight Slaughterhouses, thirty-seven Bakehouses, nine Cowsheds, and thirty-four Dairies and Milk Purveyors' premises, together with the Factories and Workshops was carried out.

COMMON LODGING HOUSES.

No special action was taken at either of these houses in view of the fact that the Council had made application to the Local Government Board for sanction to adopt the Public Health Acts Amendment Act 1907, which gives special powers as regards sanitary conveniences, etc., in Common Lodging Houses.

FISH MARKET.

For many years past a nuisance has been caused in the summer time from the market owing to the want of a properly paved and drained surface where the fish are offered for sale, and it is satisfactory to record that the Council have now paved and drained a space which can be flushed and cleansed every morning after the market has finished, thereby abating the nuisance.

SANITARY SURVEYS.

Under the Councils regulations there were 23 houses examined and reported on.

The fees received by the Council were:

	£	s.	d.
12 houses not exceeding £50 gross estimated rental	6	6	0
5 " " " £75 " " "	5	5	0
5 " " " £100 " " "	7	17	6
1 " exceeding £100 	2	2	0
	<hr/> £21 10 6 <hr/>		

HOUSE TO HOUSE INSPECTION.

In order to keep up the records continuously as the Local Government Board direct there is ample work for one Inspector's whole time on the house to house inspection.

The following table gives a tabulated statement of the sanitary inspections and house to house inspection carried out by the department, but this table does not show the number of re-visits and re-inspections made where defects were found to exist and the attention bestowed on seeing that the requirements of the Committee are carried out; nor does it include the number of visits to Slaughterhouses, Dairies and other premises for purposes of food inspection.

Borough of Worthing.—Health Department.

ANNUAL CHART to Sanitary Inspector's Report on Re-survey of Houses and Premises from January to December, 1909.

SITUATION OF PREMISES. WARD.	No. examined			Defective fittings.				Drainage defects.					Other Insanitary conditions.							Infectious Diseases.					
	Complete Streets.	No. of Premises.	Defects found at	W.C.'s and Flushing apparatus.	Soil and R.W.P.'s.	Sink & Waste Pipes	Dust Receptacles.	DRAINS.	Choked.	Tested.	Defective.	Unventilated.	No means of access	Premises dirty.	Yard and Scullery surfaces bad.	Roof and Shooting defective.	Overcrowding found.	Animals improperly kept.	Offensive accumulations.	Secondary means of access:—Passages.	Enquiries made.	Premises disinfected	Premises cleansed.	Drains flushed.	Bedding, etc., disinfected or destroyed.
Selden	—	94	40	8	—	—	13		3	9	7	—	—	—	13	2	—	1	2	3	—	33	32	33	30	28
Central	12	370	118	19	20	16	15	18	31	18	20	19	19	9	8	3	—	—	1	2	35	33	35	30	29
Park	2	85	9	1	2	—	1	2	1	1	—	—	2	7	2	1	—	—	2	25	25	25	24	23	
Victoria	3	133	9	2	—	—	1	3	4	1	—	—	—	4	—	—	—	—	2	23	23	23	21	20	
Heene	4	144	37	4	3	—	—	2	24	25	1	2	2	6	—	—	—	—	—	19	18	19	14	16	
Broadwater	4	304	38	9	—	4	—	22	—	—	—	—	—	15	11	1	3	2	2	36	35	36	36	32	
West Tarring	1	73	18	—	—	—	—	1	—	3	—	—	—	2	4	7	2	—	—	32	31	32	30	26	
Totals	26	1203	269	43	25	20	30	51	69	55	21	23	23	56	27	12	6	7	10	8	203	197	203	185	174

Factories, Workshops, Laundries, Workplaces and Homework.**1.—INSPECTIONS.***Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances,*

Premises.	Number of	
	Inspections	Written Notices.
Factories (including Factory Laundries) ...	54	1
Workshops (including Workshop Laundries) ...	362	19
Total ...	426	20

2.—DEFECTS FOUND.

Particulars.	Number of Defects.	
	Found.	Remedied.
Want of cleanliness ...	19	19
Want of ventilation ...	...	...
Overcrowding ...	1	1
Want of drainage of floors ...	1	1
Other nuisances ...	...	...
Sanitary accommodation { insufficient ...	...	...
{ unsuitable or defective ...	...	...
{ not separate for sexes...	...	...
Total ...	21	21

SANITARY ACCOMMODATION:—The Public Health Acts Amendment Act, 1890, has been adopted in this district.

3.—HOME WORK.

Lists received from Employers.	Once.	Outworkers.	From other Councils.
Wearing apparel—Making, etc....	9	19	2
Lace, lace curtains and nets ...	2	3	0
Furniture and upholstery ...	0	0	0
Total ...	11	22	2

4.—REGISTERED WORKSHOPS.

Bakehouses ...	37
Dressmakers, Milliners and Tailors ...	42
Laundries ...	17
Printing Works ...	7
Miscellaneous Workshops ...	116

Total number of workshops on Register...	219
--	-----

NUISANCES AND COMPLAINTS.

During the year 29 complaints were received and enquired into ; the following should be specially mentioned.

Two complaints were received as to overcrowding and in each case it was abated

Two were as to offensive smells from a brickyard at West Worthing. The owner's attention was called to the effluvium nuisance caused by burning bricks with house refuse and was called upon to separate animal matter such as bones, etc., from the refuse before burning, and it was ascertained that the brick making here would cease in about 12 months.

Three complaints referred to deposits of refuse on vacant land, the nuisance being chiefly caused through the public having access to the land, it not being fenced in.

The Public Health Acts Amendment Act, 1907, will come into force in February, 1910 ; power is given under Sec. 31 to deal with nuisances such as this

One was as to the condition of urinal at the Ha'f Brick Inn and plans have now been submitted to the Council for re-construction.

Another urinal (that at the rear of the Marine and Pier Hotels) which has been the cause of complaints in the past and was no doubt a serious nuisance has now been pulled down and is to be re-constructed.

SECTION 41 OF THE PUBLIC HEALTH ACTS.

Two of the total complaints received were under Section 41 of the Public Health Acts 1875 and 1890. The premises dealt with and action taken is thus recorded :

No.	Premises.	Result of action taken.	No. of houses affected.
1	Heene Terrace, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 & 17.	Work in abeyance pending decision is to liability.	17
2	King Street, 3, 5, 7, 9, 11, 13, 15, and 17.	Work in abeyance.	8
Total...			25

ARREARS OF WORK UNDER SECTION 41.

At the close of 1908 similar proceedings were pending as follows :

1	Montague Street, 82.	Drains relaid with means of access.	1
2	Montague Street, 126, 128, 130, 132, and stables at rear.	Common drain reconstructed in passage with access and ventilation. Branch drains re- laid and intercepting chambers provided to each house.	6
3	Montague Street, 23, 25, 27, 29, 31, and 33, also Bath Place, Drill Hall, Theatre Royal, & Cigar & Wine Stores	Access chamber provided to main drain in passage also a ventilating shaft & connections inside Wines Stores and rain- water drain from south side of Drill Hall re-constructed.	10
4	Newland Road, 117, 119, 121 & 123.	Work in abeyance.	4
5	South Street, 48, 50, 52, 54 & 56	Drains of 34 & 56 relaid in heavy cast iron pipes and fit- tings and old drains taken out.	5
Total...			26

The remaining complaints were of varying character and do not call for special comment.

Medical Inspection of School Children.

I. *General Review of the Hygienic Conditions prevalent in the Schools.*

BROADWATER SCHOOL.

The overcrowding at this School has been relieved by the erection and opening of the Ham Road Council School, which will be fully in use on April 4th, 1910.

WEST TARRING SCHOOL.

The Infants' School, after structural improvements had been made, was opened as a Council School after the Midsummer holidays.

ELM GROVE SCHOOL.

This School has been overcrowded for some time, caused by the closing of West Tarring School, which caused a number of children from Tarring district to attend at Elm Grove. It is proposed to remove the temporary school building to land adjoining this School to relieve the overcrowding.

In all the Schools the 8 square feet basis of floor space for each child formerly adopted has been raised to 9 square feet for infants and 10 square feet for adults.

The cleanliness, ventilation, warming, lighting and general sanitation of each School is fairly satisfactory.

The official accommodation of the Schools is given in the following statement:—

Name of the School.			Date Erected.	Official Accommodation.	Average Attendance
Ham Road	... (c.)	Mixed	1910	) 360	—
"	...	Infants	"		75
West Tarring	... (c.)	Infants	—	118	41
Christ Church	... (c.)	Boys	—	237	128
"	"	Girls	—	180	116
"	"	Infants	—	150	107
St. Joseph's	... (v.)	Mixed	—	60	59
"	...	Infants	—	39	22
Davison	... (v.)	Girls	1853	215	171
Holy Trinity	... (v.)	Boys	1871	120	111
"	...	Girls	"	162	120
"	...	Infants	"	183	133
St. George's	... (c.)	Boys	1873	220	171
"	...	Infants	"	133	103
Broadwater	... (v.)	Mixed	1873	132	160
"	...	Infants	"	68	77
St. Botolphs (Heene)	(v.)	Mixed	1886	86	99
"	"	Infants	"	62	44
St. Andrews	... (v.)	Mixed	1897	284	279
"	...	Infants	"	104	87
Elm Grove	... (c.)	Mixed	1905	{ 360	258
"	...	Infants	"		106
Sussex Road	... (c.)	Boys	1902	360	332
"	...	Girls	1907	300	262
"	...	Infants	1907	240	228

v indicates Voluntary School.

c ,, Council ,,

II. *General description of the arrangements which have been made for the co-relation of the School Medical Service with the Public Health Service and for the organization and supervision of Medical Inspection and an account of the methods of inspection adopted.*

1. The Boards schedule of Medical Inspection has been followed. The Medical Officer of Health is also the Medical Officer of the Schools.

2. A school nurse has been appointed, and the teachers have most heartily entered into this new and very important branch of the work and have rendered much valuable assistance to the Medical Officer by sending out the notices to the parents, weighing and measuring the children, and filling up the forms. I cannot too heartily thank them for their help in this matter. I believe that the same earnest desire for the present and future health of the children under their control animates them as it does all true educationalists, and that this is the root principle underlying their zeal in the matter.

The School Attendance Officers (Messrs. Robinson and Wallis) have also shown much concern for the children's health and have on several occasions assisted me in holding examinations of children who were not attending school to see if they were fit to return or not.

3. Notices were sent to all parents as to when and where the inspection would be held and in addition they all received a sheet to fill up in relation to the family history of the child which was duly returned whether the parent came or not. This greatly facilitated the work.

A large number of parents responded to the invitation to be present at the examination, especially the mothers of the younger ones.

Whenever a defect was found the parents' attention was drawn to it either personally or by note, and stress was laid upon them to shew that it was their responsibility to have the defect remedied.

This resulted in a large number consulting their own medical attendant or seeking medical advice at various hospitals.

4. The disturbance of school arrangements: A little disturbance was bound to take place, but the examinations were conducted as expeditiously as possible either in one of the private rooms or a class room set apart. Seeing that 12 to 15 were examined in an hour not much time was lost by any one individual child, although it might take one of the teachers from 1 to 2 hours from their usual work.

III. *General statement of the extent and scope of the Medical Inspection carried out during the year 1909.*

1. Forty-eight visits were paid to Schools for Inspection alone, besides a number of other visits in case of infectious disease or other special cases arising.

2. The children selected were:—

(a) Those beginning their school life.

(b) Those leaving school.

3. The following table shews the number of children inspected.

				Males.		Females.
Infants	...	Age 3	...	40	...	34
„	...	„ 4	...	73	...	66
„	...	„ 5	...	101	...	104
„	...	„ 6	...	40	...	28
„	...	„ 7	...	6	...	8
„	...	„ 8	...	2	...	3
				262		243
				505		
				Males.		Females.
Seniors	...	Age 13	...	56	...	46
„	...	„ 14	...	45	...	27
„	...	„ 15	...	1	...	—
				101		73
				174		

4. No directions as to treatment were given beyond advising the parents to seek medical advice as mentioned above.

5. The average time per head occupied by inspection was 5—7 minutes for the juniors and 7—10 minutes for the seniors. The extra time being given to examining the eyes in case of the latter.

IV. *General Review of the facts disclosed by Inspection under the headings contained in the Schedule to Circular 582. Including tables shewing height and weight (according to age and sex).*

HEIGHT AND WEIGHT.

INFANTS.

MALES.

FEMALES.

Age.	No. of Children.	Height.		Weight.		No. of Children.	Height.		Weight.	
		English.	Metric.	English.	Metric.		English.	Metric.	English.	Metric.
3	40	ft. in. 3 0 $\frac{3}{4}$	Centi- meters. 93.34	st. lbs. 2 5	Kilo- grams 15.00	34	ft. in. 3 2	Centi- meters. 96.52	st. lbs. 2 4	Kilo- grammes 14.54
4	73	3 2 $\frac{1}{4}$	97.1	2 7 $\frac{1}{2}$	16.13	66	3 2 $\frac{1}{4}$	97.15	2 7	15.90
5	101	3 4 $\frac{3}{4}$	103.50	2 11	17.72	104	3 4 $\frac{1}{2}$	102.87	2 9 $\frac{1}{4}$	16.93
6	40	3 7	109.22	3 3 $\frac{3}{4}$	19.40	28	3 4	101.60	2 9 $\frac{3}{4}$	17.15
7	6	3 8 $\frac{3}{4}$	113.66	3 1	19.54	8	3 7 $\frac{1}{2}$	114.90	3 0 $\frac{1}{2}$	19.31
8	2	3 10	116.84	3 4 $\frac{1}{2}$	21.13	3	4 0 $\frac{1}{2}$	123.18	3 11	24.09

SENIORS.

12	—	—	—	—	—	2	4 10	147.32	6 2 $\frac{1}{2}$	39.43
13	56	4 9	144.7	6 5 $\frac{3}{4}$	40.79	46	4 11 $\frac{1}{4}$	151.13	6 7 $\frac{1}{2}$	41.59
14	45	4 11 $\frac{1}{2}$	151.13	6 3 $\frac{3}{4}$	39.88	27	5 0 $\frac{1}{2}$	153.67	6 9 $\frac{3}{4}$	42.61
15	1	5 5 $\frac{3}{4}$	167.00	9 7 $\frac{3}{4}$	60.79	—	—	—	—	—

These tables again shew on the number examined that the Senior girls at ages 13 and 14 were both slightly taller and heavier than the boys at the same ages.

V. The defects found were as follows:—

	Juniors.			Adults.
Nutrition	1	...	—	—
Cleanliness and condition of skin	5	...	—	—
Head	54 (10%)	...	13 (6%)	—
Body	1	...	—	—
Teeth	180 (33%)	...	98 (47%)	—
Nose and Throat	2	...	—	—
Tonsils	92 (16%)	...	27 (13%)	—
Adenoids	6	...	—	—
Glands	5	...	—	—
External Eye Disease	11	...	3	—
Vision	11	...	42 (20%)	—
Ear Disease	9	...	3	—
Hearing	3	...	1	—
Speech	7	...	—	—
Mental	2	...	—	—
Heart	8	...	7	—
Lungs	—	...	—	—
Nervous System	—	...	—	—
Tuberculosis	—	...	—	—
Rickets	3	...	—	—
Deformities and Spinal Disease	4	...	—	—
Infectious Disease	3	...	—	—
Other defects	3	...	1	—
Parents present	320 (59%)	...	50 (24%)	—
Total examined	539	...	208	—

This table shews that among the *Juniors* the chief defects were:

Dirty Heads (verminous).

Bad teeth.

Enlarged Tonsils and Glands, and some Heart cases.

Among the *Seniors* also the teeth and tonsils, and in addition the eyesight, were found to be chiefly defective.

It will be manifest that if improvement is obtained for these defects, much good will follow.

TEETH.

I would again urge all parents to examine their children's teeth and throats, and especially to use tooth brushes. Many diseases of childhood arise from septic conditions in the mouth, e.g., abscess of the gums, sore throats, which lower the vitality of the child by the absorption of poisons into its system, and, the derangement of the organs of digestion, respiration, and circulation.

The tooth brush should be used after every meal and especially last thing at night.

Too little attention is paid to the decay of the milk teeth which ought to be 'filled' by a dentist like the more permanent set. If this is done the germs in the mouth will be much reduced, abscesses and sore throats less frequent, and better digestion present during the most impressionable time of a child's life.

TONSILS.

In regard to this subject I wrote fully last year and urged—

1. A cultivation of nose breathing.
2. Avoidance of catarrh of the nose and throat.
3. A system of proper infant feeding.

EYES.

In regard to this very important matter a scheme of treatment has been considered and presented to the Board of Education (v. below).

During the year a number of cases went to the Brighton Eye Hospital with hospital tickets obtained by the parents or supplied by the Misses Barnet, who took great interest in this part of our work.

PHYSICALLY AND MENTALLY DEFECTIVES.

There are about 30 such children, and the admirable work done by Miss Heele, which is purely philanthropic, is all that is done for these cases.

No accommodation has yet been found for the establishment of a special class.

There are only a few epileptic cases.

The blind and deaf and dumb are dealt with and go to special schools for such cases.

PROPOSED SCHEME OF TREATMENT.

Proposed scheme of treatment for the amelioration of defects found during the medical inspection of school children.

To advise the parents to obtain treatment by an ordinary medical practitioner or get tickets from subscribers for the local hospital out-patients department.

MINOR AILMENTS.

A School Nurse is appointed who it is proposed shall, under the direction of the Medical Officer, apply remedials for minor ailments, viz. :—

Skin Diseases—e.g. Ringworm, Impetigo, Eczema, Pediculosis, and Sores.

Eye Diseases—e.g. Blepharitis and Conjunctivitis.

Ear Diseases—e.g. Discharges.

Slight Injuries due to accident.

This work would be carried out at Gloucester Lodge—the combined offices of the Sanitary and Education Authorities—where ample accommodation is obtainable.

The Nurse also to visit the children's homes for the purpose of advice to parents in carrying out the treatment recommended.

The cost of this part of the work is estimated at £5 per annum, which sum will be used for the ointments, lotions and dressings necessary. X-ray work is not undertaken.

DEFECTIVE EYESIGHT.

For the treatment of defective eyesight it is proposed to appoint a special Ophthalmic Surgeon.

It is estimated that from 200 to 300 cases per annum will be treated at a cost of 20 guineas per 100 cases.

It is proposed to get the child's parents to pay for the cost of glasses wholly or partially, if possible.

The estimated cost to the Committee for the supply of glasses is £20 per annum.

TONSILS AND ADENOIDS.

For Tonsils and Adenoids; Hospital tickets to be given in such cases.

Estimated cost for 100 such cases per annum £21.

Precautions would be taken by the aid of the School Medical Officer, the School Nurse and the School Attendance Officers to secure that only those children shall be treated whose parents, after complete enquiries have been made, are found to be unable to pay for medical advice.

Nurse Benson was appointed as Health Visitor and School Nurse and commenced her duties on October 18th, 1909.

Under the directions of the Medical Officer of Health she visits mothers with a view to advising them where necessary as to the rearing of their children.

She visits the schools regularly and follows up all the cases with personal visitation where defects are found on inspection, especially when the parents do not attend the examination.

She examines the children for all forms of obvious uncleanness and disease.

In November and December she had 202 cases under observation. In 111 cases the parents did their best, and had their children seen to, and in 35 cases nothing was done. The other 56 were eye cases. Parents got glasses in 17 cases after proper examination.

Eleven cases of enlarged Tonsils are waiting to get into the Hospital, and the remaining cases are running ears, ringworms, dirty heads and neglect.

A steady effort is being made to rid the schools of all cases of verminous heads by either—

- (1) Proceeding under the byelaws for non-attendance after exclusion from school; or
- (2) Under Section 122 of the Children's Act, 1908.

Under the former, several cases were taken before the magistrates and convictions obtained.

This had the desired effect in all the cases.

Under the latter method I here quote in full the section with the powers conferred and the remedies recommended.

(Children's Act, Section 122.)

“Borough Education Department,

“Worthing, 22nd March, 1910.

“Mr.....

.....

.....

“I hereby give you notice, in accordance with the provisions of Section 122 of the Children Act, 1908, that the Medical Officer of Health (or other person provided with the authority in writing of the Medical Officer of Health) has examined the person and clothing of your child attending School, and is of opinion that the person or clothing of such child is infected with vermin or is in a foul or filthy condition, and I am therefore to require you as provided by the Section referred to above, to cleanse properly the person and clothing of such child within twenty-four hours after the receipt of this notice. Written instructions describing the manner in which the cleansing may best be effected are attached hereto.

“In default of compliance with this notice, the Medical Officer of Health is empowered to remove the child from the school and cause his (or her) person and clothing to be properly cleansed.

“Further, I am to give you warning that if, at the expiration of twenty-four hours from the receipt of this notice, you do not cause the child to attend School at the usual hours during which the same is open, proceedings before the Magistrates will immediately be taken against you under the Bye-Laws relating to school attendance.

“Section 122 (4) of the Act referred to further provides as follows :—

“ ‘Where after the person or clothing of a child has been cleansed by a local education authority under this section, the parent or guardian of, or other person liable to maintain the child allows him to get into such a condition that it is again necessary to proceed under this section, the parent, guardian or other person shall, on summary conviction, be liable to a fine not exceeding ten shillings.’

Signed.....

“Town Clerk and Clerk to the Education Committee.”

“BOROUGH OF WORTHING EDUCATION COMMITTEE.
“INSTRUCTIONS FOR CLEANSING CHILDREN’S HEADS
OF NITS AND VERMIN.

“(1) It is rare to find nits and vermin in boys’ heads unless their hair is allowed to grow too long. Girls’ hair so affected should therefore be cut short, regularly combed with the old-fashioned small-toothed comb, and the head washed with soft soap and water twice a week. This is the quickest and surest way.

“*Other Methods.*

“(2) Anoint the head freely with common paraffin oil ; cover with rags soaked in the oil, and wear over all an oiled silk bathing cap.

“Give the head a second soaking twelve hours later, and after 12 hours more the scalp must be thoroughly washed with soft soap and water.

“Children treated in this way must not be allowed to go near the fire or have a light brought near them.

“(3) One part of Acetic Acid mixed with three parts of water and applied to the head is also useful in loosening the nits.”

As a result of the following correspondence between the Education Committee and the medical practitioners of the town, a satisfactory understanding as regards the granting of medical certificates for school children is now arranged for.

At a meeting of the Medical Inspection Sub-Committee it was resolved, that the Education Committee be recommended to approve the following letter and to instruct the Clerk to forward the same as proposed :

“ Dear Sir,—A letter dated 28th October, 1908, was addressed to the medical practitioners in Worthing on the appointment of a school medical officer. It contained the following statement :—

‘ You are no doubt aware that for some time past there has been an arrangement under which the Education Committee have paid for medical certificates obtained for their purposes in respect of Elementary School children. An Act adopted by Parliament last year made it necessary for a Medical Officer to be appointed for the inspection of children attending Public Elementary Schools, and the examination of cases such as those referred to above, will, in future, be made by him.’

“ After a year’s experience, it has been found advisable that the parents of all children attended by a private doctor should obtain from him the requisite school certificates, such certificates to be paid for by the parents.

“ Special arrangements are in operation with respect to the children who are attending the local hospital, or who are under the care of the Poor Law doctors.

“ *There only remains one class to be dealt with by the Education Committee’s Medical Officer*, namely, the children who either are not under medical treatment, or about whom no information can be obtained.

“ Where satisfactory reasons for absence from school are unobtainable, the cases have to be brought before the Magistrates, and it must be remembered that the parents are responsible for the production of the necessary evidence. The medical practitioners of the town are, therefore, requested kindly to co-operate with the Education Committee in carrying out this important part of its duties.

Yours faithfully,

W. VERRALL,

Town Clerk and Clerk to the Education Committee.”

In conclusion, I have to thank Mr. Sparkes, the Clerk to the Education Department, and his assistants, for their valuable help on many occasions during the year.

TABLE 1.

Vital Statistics of Whole District during 1909 and Previous Years.

BOROUGH of WORTHING.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.				TOTAL DEATHS IN PUBLIC INSTITU- TIONS IN THE DISTRICT.	Deaths of Non- Residents registered in Public Institu- tions in the District.	Deaths of Residents registered in Public Institu- tions beyond the District.	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.	
		Number.	Rate*	Under 1 Year of Age.		At all Ages.					Number.	RATE.*
				Number.	Rate per 1000 births registered.	Number.	Rate*					
1	2	3	4	5	6	7	8	9	10	11	12	13
1899	19,400	368	19.0	69	187	322	16.6	18	11	23	334	17.2
1900	19,700	363	18.4	51	140	349	17.7	19	8	23	364	18.5
1901	20,015	413	20.6	46	111	287	14.3	22	4	21	304	15.2
1902	20,450	398	19.5	46	115	276	13.5	17	5	11	282	13.2
1903	23,750	501	21.1	51	102	298	12.6	24	4	20	314	13.8
1904	24,218	457	18.8	50	109	337	13.9	20	10	13	340	14.0
1905	24,720	520	21.1	43	82	333	13.5	14	8	17	342	13.7
1906	25,262	517	20.4	61	118	367	14.5	21	11	22	378	14.9
1907	25,880	509	19.7	54	106	364	14.1	12	6	28	386	15.5
1908	26,600	531	19.9	58	109	390	14.6	22	4	28	414	15.1
Averages for years. 1899-1908	22,999	458	19.8	53	118	332	14.5	19	7	20	346	15.1
1909	27,200	518	19.0	39	75	360	13.2	25	10	30	380	14.3

* Rates in Columns 4, 8, and 13, calculated per 1,000 of estimated population.

NOTE.—The deaths included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The "Public institutions" taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums. A list of the Institutions in respect of the deaths in which corrections have been made is given below.

Institutions within the District receiving sick and infirm persons from outside the District.	Institutions outside the district receiving sick and infirm persons from the District.
Worthing Hospital, Lyndhurst Road. Home of the Holy Rood, Stoke Abbot Road. Dolling Memorial, Teville Road.	Borough Isolation Hospital, Swandean. East Preston Union Workhouse. County Hospital, Brighton. County Asylum, Chichester. Freidenheim Hospital, Upper Avenue Rd., Hampstead.

Area of District in acres
(exclusive of area
covered by water). } **1437.**

Total Population at all ages **20,015**
Number of inhabited houses **4,084**
Average number of persons per house **4.9** } At Census
of 1901.

Borough of Worthing.

TABLE II. Vital Statistics of separate Localities in 1909 and previous years.

NAMES OF LOCALITIES	1. Whole District.				2. Altered Area of whole District.				3. Selden.				4. Central.				5. Park.				6. Victoria.				7. Heene.				8. Broad-water.				9. West Tarring.			
	Population estimated to middle of each year	Births registered.	Deaths at all Ages	Deaths under 1 year	Population estimated to middle of each year	Births registered	Deaths at all Ages	Deaths under 1 year	Population estimated to middle of each year	Births registered	Deaths at all Ages	Deaths under 1 year	Population estimated to middle of each year	Births registered	Deaths at all Ages	Deaths under 1 year	Population estimated to middle of each year	Births registered	Deaths at all Ages	Deaths under 1 year	Population estimated to middle of each year	Births registered	Deaths at all Ages	Deaths under 1 year	Population estimated to middle of each year	Births registered	Deaths at all Ages	Deaths under 1 year								
1899	19400	368	334	69	21822	451	357	82	3600	73	70	14	5900	102	98	21	3241	79	46	16	3800	82	61	15	2800	33	34	3	1161	29	10	3				
1900	19700	363	364	51	22212	450	390	67	3700	75	89	11	5800	81	96	11	3316	73	74	16	3869	100	58	7	2950	33	31	3	1172	39	22	10				
1901	20015	413	304	46	22617	481	326	50	3809	106	57	11	5788	85	67	11	3388	86	62	9	3911	95	54	8	3019	43	48	8	1187	27	18	1				
1902	20450	398	282	46	23117	487	306	51	3920	86	60	7	5750	81	70	12	3460	93	49	9	4000	98	45	9	3200	40	50	8	1207	39	19	2				
1903	23750	501	314	51	23750	501	314	51	4040	113	65	15	5750	90	79	12	3550	65	40	2	4140	73	44	13	3375	57	35	3	1240	52	31	1				
1904	24218	457	340	50	24218	457	340	50	4120	101	68	7	5740	72	77	9	3580	77	46	9	4250	61	43	9	3458	48	50	5	1320	51	24	2				
1905	24720	520	342	43	24720	520	342	43	4207	98	66	8	5730	88	82	8	3610	79	44	7	4360	69	41	6	3510	65	56	3	1450	66	26	5				
1906	25262	517	378	61	25262	517	378	61	4255	111	79	16	5720	69	85	8	3665	83	52	9	4460	79	43	8	3630	49	53	7	1570	71	43	9				
1907	25800	509	386	54	25800	509	386	54	4367	116	84	10	5720	90	73	9	3683	63	41	10	4568	60	56	5	3712	57	61	5	1725	77	38	7				
1908	26600	531	414	58	26600	531	414	58	4720	120	93	12	5720	79	79	10	3705	68	49	5	4600	63	53	8	3770	47	56	5	1960	79	48	8				
Averages of Years 1899 to 1908																																				
					22999	458	346	53	4073	98	73	11	5762	84	81	11	3520	76	50	9	4196	78	50	9	3342	47	47	5	1399	53	28	5				
1909					27200	518	380	39	4800	110	84	9	5710	82	83	7	3780	44	53	4	4690	61	41	4	3860	52	52	5	2120	110	41	10				

TABLE III.

Borough of Worthing.

Cases of Infectious Disease notified during the Year 1909.

NOTIFIABLE DISEASE.	Cases Notified in whole District.						Total Cases Notified in each Locality.						Number of Cases removed to Hospital from each Locality.								
	At all Ages.	At Ages—Years.					Selden Ward	Central Ward	Park Ward	Victoria Ward	Heene Ward	Broadwater Ward	West Tarring Ward	Selden Ward	Central Ward	Park Ward	Victoria Ward	Heene Ward	Broadwater Ward	West Tarring Ward	Total cases removed to Hospital
		Under 1	1 to 5	5 to 15	15 to 25	25 to 65																65 and upwards
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria including Membranous croup)	52	...	11	35	4	2	4	6	4	6	9	14	9	3	4	3	4	5	13	8	40
Erysipelas	9	...	...	1	1	7	2	...	1	...	1	1	...	1	...	1	...	...	...	...	1
Scarlet fever	118	...	20	76	13	9	16	24	16	13	7	17	21	12	21	11	8	7	15	19	93
Typhus fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric fever	7	...	...	2	1	4	...	3	...	2	1	1	...	...	...	...	...	...	1	...	1
Relapsing fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal fever	2	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	188	...	31	114	20	23	29	33	22	22	19	33	30	16	25	14	12	12	29	27	135

NOTES.—The localities adopted for this table are the same as those in Tables 2 and 4.

Isolation Hospital—"Swandean," Durrington, in the East Preston Rural District.
Total available beds—32

Number of Diseases that can be concurrently treated— 3

TABLE IV.

Borough of Worthing.**Causes of, and Ages at, Death during Year, 1909.**

CAUSES OF DEATH.	Deaths at the subjoined Ages of "Residents" whether occurring in or beyond the District						
	All Ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards
	2	3	4	5	6	7	8
Small-pox	...	...	...	.	...	...	...
Measles	...	...	...	...	..	...	...
Scarlet fever	..	...	...	...	...	...	...
Whooping-Cough	2	...	2	..	...	...	...
Diphtheria (including Membranous croup)	3	...	1	2	...	...	...
Croup	...	...	...	...	...	..	...
Fever	}	Typhus	...	...	...	...	...
		
		
Epidemic influenza	20	1	...	1	1	8	9
Cholera	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...
Diarrhœa	7	6	1	...	...	...	...
Enteritis	...	...	...	...	...	..	...
Puerperal fever	...	...	...	..	...	...	...
Erysipelas	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis)	31	...	...	2	6	23	...
Other tuberculous diseases	14	4	2	1	1	6	...
Cancer, malignant disease	33	...	..	...	...	17	16
Bronchitis	24	...	...	1	...	2	21
Pneumonia	23	7	4	...	...	6	6
Pleurisy	...	...	...	...	...	...	...
Other diseases of respiratory organs	3	1	1	...	..	1	...
Alcoholism	6	...	...	...	..	5	1
Cirrhosis of liver	2	...	...	...	..	2	...
Venereal diseases	6	6	...	..	..	...	...
Premature birth	...	...	...	...	...	...	...
Diseases and accidents of parturition	...	...	...	...	..	...	...
Heart diseases	34	...	1	...	1	15	17
Accidents	7	...	...	1	...	1	5
Suicides	4	...	...	...	...	4	...
All other causes	161	14	4	7	3	40	93
All Causes	380	39	16	15	12	130	168

TABLE IV (Continued).

Deaths at all Ages of "Residents" belonging to Localities whether occurring in or beyond the District.							Total Deaths whether of "Residents" or "Non-Residents" in Public Institutions in the District
Selden Ward.	Central Ward.	Park Ward.	Victoria Ward.	Heene Ward.	Broad water Ward.	West Tarring Ward	
9	10	11	12	13	14	15	16
...
...
...
1	...	1	...	...	...	...	...
1	1	...	...	...	...	1	...
...
...
...
...
3	2	3	1	3	4	4	2
...
...
...	...	1	1	3	2	..	..
...
...
...
3	9	3	4	4	3	5	...
5	...	1	...	2	4	2	...
9	7	4	4	5	3	1	6
7	7	1	3	4	2	...	..
4	4	7	1	...	3	4	1
...
1	...	...	...	...	2	...	...
...	1	2	3	...	...	...	...
...	2	...	...	...	...	...	...
1	3	..	1	...	1	...	...
...
10	7	5	3	6	1	2	4
...	3	...	...	1	2	1	2
1	1	1	...	1	.	...	...
38	36	24	20	23	14	6	10
84	83	53	41	52	41	26	25

Borough of Worthing.

CAUSE OF DEATH.		Under 1 Week.	1—2 W'ks	2—3 W'ks	3—4 W'ks	Total under Month
All Causes.	(Certified Uncertified)	—	—	—	—	—
i. Common Infectious Diseases.	Small-pox Chicken-pox Measles Scarlet Fever Diphtheria (including Membranous Croup) Whooping Cough	...	...	...	...	...
ii. Diarrhœal Diseases	Diarrhœa, all forms Enteritis, Muco-enteritis, Gastro-ent'itis Gastritis, Gastro-intestinal Catarrh	...	...	...	...	...
iii. Wasting Diseases.	Premature Birth Congenital Defects Injury at Birth Want of Breast-milk Starvation Atrophy, Debility Marasmus	5	...	1	...	6
		...	1	1	...	2
	
	
		...	1	1	1	3
iv. Tuberculous Diseases.	Tuberculous Meningitis Tuberculous Peritonitis : Tabes Mesenterica Other Tuberculous Diseases,	...	...	...	...	...
	
	
	
	
v. Other Causes.	Erysipelas Syphilis Rickets Meningitis (not Tuberculous) Convulsions Bronchitis Laryngitis Pneumonia Suffocation overlying Other Causes	...	...	...	...	...
	
	
	
	
	
	
	
	
	
	
		1	1	1	2	5
Total...		6	3	4	3	16

Births in the year	{ legitimate...	501
	{ illegitimate	17

Death from *all Causes at all Ages* 380

TABLE V (Continued).

INFANTILE MORTALITY DURING THE YEAR, 1909.

1-2 M'hs	2-3 M'hs.	3-4 M'hs	4-5 M'hs	5-6 M'hs	6-7 M'hs	7-8 M'hs	8-9 M'hs	9-10 M'hs	10-11 M's	11-12 M's	Total Deaths under 1 year.
—	—	—	—	—	—	—	—	—	—	—	
...
...
...
...
...
...	1	...	...	...	...	...	...	1	...	1	3
...	2	...	...	...	1	...	1	...	...	...	4
...
...	6
1	3
...
...
...
2	1	...	...	...	...	...	...	6
...	1	...	...	1
...	1	...	...	...	...	...	...	1
...
...
...
...
...
...
...
...
...	1	1	...	...	1	...	1	...	2	1	7
...
...	...	1	...	1	1	...	...	...	...	...	8
3	4	2	—	3	3	—	2	2	2	2	39

Population
Estimated to middle of 190927,200
Deaths in the { legitimate infants... 35
year of { illegitimate infants 4

BOROUGH OF WORTHING.

ANNUAL REPORT

ON THE

Meteorological Observations

DURING THE YEAR 1909.

LATITUDE 50°49' N.

LONGITUDE 0°22' W.

*Height above mean sea level of the ground at Victoria
Park Observatory, 35·25 feet.*

*Height above mean sea level of cistern of barometer at
the Town Hall, 29·54 feet.*

*Height above mean sea level of the Sunshine Recorder
at Public Library, 73·50.*

Hours of Observation, 9 a.m., 3 p.m., 6 p.m.,
and Sunset.

*The Instruments have been verified at the National Physical
Laboratory, Kew.*

Meteorology.

The Meteorological Observations have been continued during the year by Mr. F. H. French, F.R. MET. SOC.

On January 1st, 1907, the instruments were removed from the grounds of the old public library in Chapel Road and re-erected in the lawn of Bedford House in the centre of the Town. Here the observations were carried out until December 31st, 1907, and on January 1st, 1908, the instruments were again removed and permanently fixed in Victoria Park, the height of the ground here being 35.25 feet above O.D. and a new unclimbable fence erected round them.

The Campbell Stokes Sunshine Recorder previously used at the old library was refixed at the new library and records commenced on January 1st, 1908, and the Jordan recorder fixed at the side of same. Another Campbell Stokes Recorder is placed on a platform at the south end of the Pier and records were taken daily from here, but are not now used officially. The official records are all taken from the one recorder at the Public Library.

During the year Mr. William Marriott, F.R. MET. SOC., and Mr. D. W. Horner, F.R. MET. SOC., visited the station on behalf of the Royal Meteorological Society and Mr. Marriott advised that the enclosure be enlarged to permit a Stevenson screen with Hair Hygograph being fixed.

In 1908 the sunshine recorders at the Library were found to be partly obstructed at mid-summer by trees to the North East and North West and, during this year, the platform has been raised $4\frac{1}{2}$ feet so that the sun's rays are effectively recorded all the year round.

The Campbell Stokes sunshine cards are sent to the Meteorological Office at the close of each month and the records examined. The results have been very satisfactory.

Daily reports are sent each evening to the leading newspapers, the Meteorological Office and Newspaper Weather Bureau.

Weekly reports are made to the local papers and the Meteorological Office and each month a full return is sent to the Royal Meteorological Society for publication in their journal.

Rainfall statistics are also supplied to the British Rainfall Organization.

RAINFALL.

The rainfall for the year was considerably above the average, October and December being exceptionally wet.

The fall for January, February, April, May, and November, was below the average for the month.

The driest month was February, when there were only six rainy days and a total of 0·30 inches. The wettest month was October, when 7·97 inches fell, there being only five days in this month when no rain fell.

Of the total number of rainy days there were twenty-eight on which only 0·01 inches fell.

On four days the total rainfall exceeded an inch. The dates being :

1·02	during	24	hours	beginning	9	a.m.,	July	27th.
2·34	„	„	„	„			October	26th.
1·10	„	„	„	„			„	28th.
1·06	„	„	„	„			November	29th.

Table 1 gives the details of rainfall for the past year together with the averages and Table 2 the figures for the previous ten years and also the average for 56 years.

TABLE 1

Month.	Total Depth	Mean Fall from 1852-1908.	Greatest Fall in 24 hours beginning 9 a.m.		No. of rainy days.
	Inches.	Inches.	Inches.	Date.	
January	1.07	2.50	0.29	14	15
February	0.30	1.87	0.14	9	6
March	3.03	1.74	0.37	6 & 24	21
April	1.44	1.61	0.47	19	14
May	1.56	1.78	0.81	24	8
June	2.44	1.96	0.60	3	17
July	2.15	1.89	1.02	27	12
August	2.72	2.29	0.80	24	12
September	2.97	2.51	0.72	28	17
October	7.97	3.68	2.34	26	26
November	1.71	3.01	1.06	29	8
December	4.75	2.54	0.99	21	22
Year	32.11	27.38	2.34	Oct. 26	178

TABLE 2

Year.	Amount in Inches.	No. of Rainy Days.
1899	26.23	144
1900	26.33	182
1901	21.45	139
1902	23.77	157
1903	32.19	189
1904	26.85	163
1905	24.63	162
1906	30.44	173
1907	21.78	158
1908	22.15	146
Average for 10 years	25.58	161
„ „ 56 „	27.38	—
Year 1909	32.11	178

TABLE 3

Comparative table of Rainfall in the County of Sussex for the year 1909 kindly supplied by the British Rainfall Organization.

The stations are arranged in geographical order from S. to N.

Station.	Total Amount in inches	Station.	Total Amount in inches
Bognor ...	28·99	Isfield ...	30·02
Seaford ...	29·78	Stedham ...	39·58
Eastbourne ...	35·28	Petworth Park ...	34·52
Littlehampton ...	29·38	Battle ...	35·94
Worthing ...	32·11	Tottingworth Park ...	36·86
Brighton ...	30·98	Haywards Heath ...	33·41
Chichester ...	32·45	Lower Beeding ...	31·69
Patching ...	34·22	Salehurst ..	40·17
Westbourne ..	36·90	Crowhurst ...	43·38
Hailsham ...	33·91	Lynchmere ...	41·86
Lewes ...	35·68	Wadhurst ...	37·05
Steyning ...	39·87	Worth ...	38·26
Coldharbour ...	38·14	Crawley Down ...	36·11
Chilgrove ...	38·90	East Grinstead ...	36·08
Guestling ...	33·33	Groombridge ...	34·12
Danny Park ...	41·39		

TEMPERATURE.

The highest Temperatures during the year were registered during August. On Sunday, 8th August, the shade thermometer reached 81·2° and on Monday 9th, 81·1°. The absolute maximum temperature for the South East district of England was 92° registered at Epsom, on Sunday, August 15th, on which day the maximum shade temperature at Worthing was 72·8°.

The lowest night temperature was 19·9° registered on March 5th.

The minimum thermometer exposed on grass read 15·8° on Friday, 5th March, and 19·1° on December 21st.

There were 82 frosty nights in 1909 and 59 in 1908.

Table 4 gives the figures for the year and Table 5 for the previous 28 years.

The humidity observations prove interesting. It will be seen that the figures calculated from the 3 p.m. readings are lowest each month while the mean humidity, curiously enough, for the year is the same at 9 a.m. as at 6 p.m.

Table 6 shews the reading of the Black and Bright Bulb Solar Radiation Thermometers.

Table 5. Climate at Worthing, 1881-1908.

Year.	Temperature.							Rain. 8in. Gauge	
	Means.					Extremes.		Amount at Observatory.	Number of Wet Days.
	9 a.m.	Min.	Max.	Range.	Mean.	Min.	Max.		
	deg.	deg.	deg.	deg.	deg.	deg.	deg.	inches.	
1881	... 50.3	43.4	55.0	11.6	49.2	13.5	82.0	29.60	142
1882	... 51.6	45.1	56.5	11.4	50.8	26.6	81.0	32.35	180
1883	... 50.7	43.9	55.9	12.0	49.9	23.3	75.7	26.05	174
1884	... 52.0	45.6	56.8	11.2	51.2	27.0	83.3	23.51	126
1885	... 50.0	43.7	55.1	11.4	49.4	25.2	81.7	28.09	156
1886	... 50.0	44.0	55.2	11.2	49.6	23.2	78.0	31.89	164
1887	... 48.4	41.6	54.1	12.5	47.9	17.4	82.0	21.28	137
1888	... 48.0	42.4	53.3	10.9	47.8	20.2	78.8	25.88	181
1889	... 49.5	42.7	54.8	12.1	48.8	21.9	81.5	23.92	159
1890	... 49.4	42.2	54.6	12.4	48.4	14.9	78.0	22.84	149
1891	... 49.4	42.4	54.8	12.2	48.4	16.5	77.0	29.86	172
1892	... 49.1	41.8	54.5	12.7	48.2	20.2	76.0	23.73	141
1893	... 52.3	44.0	57.7	13.7	50.9	18.2	84.7	25.12	142
1894	... 51.2	44.9	52.8	10.9	50.3	12.9	80.2	35.71	184
1895	... 50.4	43.0	55.5	12.5	49.3	16.2	77.9	26.09	162
1896	... 51.0	43.3	56.5	13.2	49.9	22.9	80.7	25.74	152
1897	... 51.4	44.7	56.9	12.2	50.8	21.9	80.7	26.07	172
1898	... 52.2	45.7	57.6	11.9	51.6	27.0	80.9	22.51	158
1899	... 51.9	50.0	57.6	12.6	51.3	23.6	84.4	26.33	144
1900	... 51.2	44.9	56.2	11.3	50.6	20.9	79.0	26.33	182
1901	... 50.2	43.6	55.8	12.2	49.7	22.9	80.7	21.45	139
1902	... 50.2	43.6	55.0	11.1	49.6	21.8	78.0	23.77	157
1903	... 50.9	45.2	55.4	10.2	50.3	23.7	78.2	32.19	189
1904	... 50.4	44.3	55.5	11.2	49.9	23.8	77.4	26.85	163
1905	... 50.1	42.2	55.6	11.4	49.1	23.9	77.1	24.63	162
1906	... 50.6	44.3	56.1	11.8	50.2	24.9	78.6	30.44	173
1907	... 50.2	45.1	54.8	9.5	50.0	20.4	76.1	21.78	158
1908	... 50.9	44.1	56.1	12.1	50.1	16.0	80.2	22.15	146

TABLE 6.

Month.	Earth Temperature.										Terrestrial Radiation.					Solar Radiation.							
	One Foot.			Two Foot.			Four Foot.			Six Foot.			Minimum Thermometer on Grass.					Black Bulb.			Bright Bulb.		
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean		
	43.0	34.8	39.0	43.0	37.8	41.0	46.3	43.2	45.0	49.0	45.9	46.9	41.0	20.0	30.9	Grd.First No. Days 14	90.8	38.8	70.7	60.1	37.0	49.5	
January ...	42.3	35.0	37.0	41.3	37.6	39.1	43.1	40.8	42.5	45.8	43.8	44.6	44.3	19.2	27.7	23	103.2	43.3	81.3	64.1	37.4	52.0	
February...	46.1	34.7	36.5	45.0	37.0	40.5	43.6	41.3	41.7	44.0	42.9	43.2	43.5	15.8	31.7	13	110.3	39.0	75.7	66.4	38.6	53.9	
March ...	53.9	42.9	48.6	52.1	44.2	48.2	49.1	44.0	46.2	48.0	44.0	45.8	47.2	25.0	37.4	3	118.8	53.2	96.8	75.9	53.0	68.5	
April ...	59.2	49.2	53.1	57.7	50.6	53.6	53.2	49.2	50.9	51.6	48.1	49.5	49.8	28.0	38.9	2	138.8	97.3	124.5	84.4	66.6	78.8	
May ...	61.6	54.8	58.3	60.0	55.2	57.7	56.1	53.4	54.6	54.6	51.8	53.1	52.8	36.1	45.9	...	140.8	75.0	121.4	86.8	58.1	77.0	
June ...	64.1	58.3	61.6	62.7	58.3	60.8	58.3	55.9	57.5	56.9	54.7	55.8	58.0	39.0	50.1	...	143.8	100.8	127.2	90.1	74.6	82.5	
July ...	67.2	61.2	63.7	65.6	61.2	63.7	62.7	60.1	59.9	59.0	57.0	58.2	58.9	41.8	50.4	...	140.5	80.0	119.6	96.0	72.2	84.4	
August ...	60.6	56.4	58.6	61.6	57.6	59.3	60.0	57.9	58.7	59.0	57.7	58.3	53.9	36.0	46.4	...	128.3	63.6	96.8	83.0	61.2	75.7	
September	57.9	44.6	55.5	59.0	49.0	53.6	57.9	54.1	56.8	57.7	55.9	57.1	58.3	24.0	45.7	2	120.2	55.4	80.7	79.4	49.9	68.0	
October ..	49.3	37.0	42.9	50.7	41.1	44.8	53.8	46.9	50.4	55.7	49.8	52.9	46.0	22.7	32.0	11	107.0	48.0	76.5	68.1	44.0	53.6	
November	44.0	36.0	40.0	44.4	39.0	42.2	46.9	43.8	45.3	49.5	46.2	47.7	45.3	19.1	31.0	14	92.7	40.0	65.7	69.9	39.6	50.6	
December	67.2	34.7	49.6	65.6	37.0	50.4	62.7	40.8	50.9	59.0	42.9	51.1	58.9	15.8	34.8	82	143.8	38.8	94.7	96.0	37.0	66.2	
Year 1909																							
For previous 10 years.	68.8	34.3	51.2	66.3	37.0	51.4	62.7	41.1	51.5	60.8	44.1	51.8	64.1	15.0	40.4	...	147.8	36.2	97.4	118.3	30.3	68.6	

TEMPERATURE OF THE SOIL AT 9 A.M.

I give below the extreme variation of each of the thermometers :—

1ft.	2ft.	4ft.	6ft.
32·5°	28·6°	21·9°	16·1°

The soil was coldest in March and warmest in August.

Table 6 gives the figures for the year and also the previous 10 years and it will be seen on comparing same that the means for the year for each of the four thermometers differed very little from the average. It will be noticed, however, that the minimum at four foot in March 40·8° and 42·9° at 6ft. are the lowest temperatures recorded at their respective depths since the observations have been taken.

BRIGHT SUNSHINE.

The year as a whole was sunny, and the amount of bright sunshine recorded, above the average.

The figures for March, September and October, were below the average and the totals for June and July the lowest yet recorded.

The amounts registered in February, May and November, were the highest on record.

Table 7 gives details of the amounts recorded by the Campbell Stokes and Jordan instruments and also the number of sunless days.

A sunless day is one in which less than six minutes of bright sunshine is recorded and it will be seen by comparing the 1909 results with those for the preceding years given in Table 8, that there were more sunless days in 1909 than any previous year.

A comparison of the respective records of the Campbell-Stokes and Jordan instrument shews the latter to be much behind the former. The Campbell-Stokes is the officially recognised instrument and is much more satisfactory, leaving less to the sensitiveness of the charts and the imagination of the observer.

Table 9 gives the number of hours of Bright Sunshine recorded at a number of watering places, and it will be seen that Worthing has again maintained the high reputation of being one of the sunniest towns in the kingdom.

At the foot of Table 9 I give the District values of Bright Sunshine for the six districts of England as denoted by the Meteorological Office; from which it can be seen the South East part of England is far and away the sunniest part of the country. The figures for Worthing are used with others in computing the amount for the South East of England.

TABLE 7.

Month.	Campbell-Stokes. Hours.	Percentage of possible duration	Number of Sunless Days	Jordan. Hours.
January	82.1	31.3	9	58.0
February	135.9	49.5	4	113.7
March	96.1	22.7	9	92.2
April	244.6	59.8	0	233.8
May	353.1	74.6	0	326.1
June	143.5	29.6	4	137.0
July	201.2	41.0	1	167.5
August	250.0	56.6	1	221.0
September	160.3	42.9	6	144.6
October	93.4	28.4	11	85.9
November	131.3	49.2	5	109.2
December	66.1	27.6	13	52.1
Year.	1958.6	44.4	63	1741.1

TABLE 8.

Year.	Campbell-Stokes Hours.	Percentage of possible duration.	No. of Sunless	Jordan Hours.
1899	2206.7	50.0	48	2113.8
1900	1885.6	42.8	55	1778.4
1901	2017.0	45.8	43	1875.3
1902	1661.7	37.7	61	1536.2
1903	1749.2	39.7	61	1751.8
1904	1748.4	39.5	61	1698.3
1905	1715.3	38.9	58	1633.8
1906	2010.6	45.6	46	1805.9
1907	1776.8	40.0	57	—
1908	1991.3	45.0	42	1676.1
Average for 10 years.	1876.3	42.5	53	1696.6
1909.	1958.6	44.4	63	1741.1

TABLE 9.
RECORD OF BRIGHT SUNSHINE

registered by the Campbell-Stokes Recorder during the year, 1909.
(Abstracted from the Returns of the Meteorological Office).

Name of Stations.			Hours of Bright Sun- shine, Campbell-Stokes Instrument.
Salcombe	...	...	1992
Bognor	...	...	1981
Falmouth	...	...	1975
Penzance	...	...	1971
Worthing	...	...	1959
Weymouth	...	...	1941
Torquay	...	...	1939
Dover	...	...	1927
Sandown (I.O.W.)	...	...	1908
Bournemouth	...	...	1906
Ventnor (I.O.W.)	...	...	1904
Eastbourne	...	...	1904
Southsea	...	...	1902
Totland Bay (I.O.W.)	...	...	1897
Hastings	...	...	1878
Brighton	...	...	1857
Bexhill	...	...	1860
Ramsgate	...	...	1877
Folkestone	...	...	1859
Felixtowe	...	...	1838
Southampton	...	...	1748
Blackpool	...	...	1652
Southport	...	...	1611
Llandudno	...	...	1611
District Values :			
South East of England	...	...	1741
South West	„	...	1699
East	„	...	1621
North West	„	..	1511
North East	„	...	1400
Midland Counties	...	...	1449

BAROMETER.

The corrected readings from 9 a.m. observations of the Fortin Standard Barometer are given below.

The pressure was highest during January with a mean of 30·207 inches and lowest in March with a mean of 29·549 inches.

The Barometer was steadiest in July, the variation being about $\frac{3}{4}$ of an inch.

The widest range of readings occurred in December being as much as 1·673 inches.

The absolute range for the whole year was nearly two inches.

TABLE 10.

Month.	Maximum Observed Reading 9 a.m. inches.	Date.	Minimum Observed Reading 9 a.m. inches.	Date.	Mean for Month	Absolute Range.
January	30·733	4	29·390	15	30·207	1·343
February	30·538	14	29·414	10	30·152	1·124
March	29·985	12	29·178	3	29·549	807
April	30·535	3	29·636	24	30·035	·899
May	30·485	3	29·571	26	30·135	·914
June	30·377	18	29·412	24	29·978	·965
July	30·330	20	29·608	7	29·989	·722
August	30·317	11	29·444	18	30·026	·873
September	30·265	14	29·674	7	30·044	·591
October	30·320	9	29·369	27	29·861	·951
November	30·459	24	29·421	30	30·043	1·038
December	30·456	30	28·783	4	29·713	1·673
Year.	30·733	4th Jan.	28·783	4th Dec.	29·978	1·950

East Preston Rural District Council

Chairman:—Alfred Heasman, Esq., J.P., C.C.

Vice-Chairman:—John Drewitt, Esq.

Mr. Councillor Pyle.	Mr. Councillor A. F. Somerset, J.P.
„ „ Turner.	„ „ Wyatt.
„ „ Strong.	(Mrs.) Gordon.
„ „ Langmead.	Mr. Councillor Pring.
„ „ Holden.	„ „ Muggeridge.
„ „ H. P. Gray.	„ „ Rev. D. H. Newman.
„ „ (Rev. Canon) Deane.	„ „ W. Rawson-Shaw, J.P.
„ „ Boniface.	„ „ Schweder.

Clerk:—A. Shelley.

Medical Officer of Health:—R. Heywood Wilshaw, M.B., D.P.H.

Surveyor of Highways and Inspector of Nuisances:—H. Vail.

Surveyor (Buildings):—R. R. W. Hyde

Vital Statistics.

POPULATION.

The population in this registration district was 17,568 at the census of 1841 and 18,746 in 1851; owing chiefly to changes in the area, it declined to 17,423 in 1861; after which period it rose to 21,579 in 1871, to 26,364 in 1881, and to 32,394 in 1891. These figures, however, include the Urban districts of Worthing and Littlehampton, which rapidly increased during this period, and Arundel with its almost stationary population.

The estimated population of the Sanitary District at the middle of the year 1909 was 6,300.

At the last census the population was 8,809, the number of inhabited houses, 1,874, with an average of 4.7 persons per house.

In November, 1902, the urban portions of Broadwater and West Tarring were added to the Borough of Worthing, and the rural portions were added to Durrington, Sompting and Goring respectively.

The following table gives the population of each parish in the district at each census from 1861-1901.

				Persons	Persons	Persons	Persons	Persons
				1861	1871	1881	1891	1901
Worthing Sub-district.	Parish							
	Broadwater	...		661	1288	841	1016	1187
	Heene	...	...	140	151	156	—	—
	West Tarring	...		606	656	733	1035	1720
	Clapham	...		242	246	239	270	226
	Durrington	...		171	165	181	153	257
	Goring	...	...	535	464	528	561	551
	Ferring	...	...	253	267	232	226	243
Littlehampton Sub-district.	Kingston	...		45	27	34	43	40
	East Preston	...		320	331	420	414	564
	Angmering (part of)			953	1041	848	883	894
	Lyminster (Wick)			801	1071	1178	1320	1413
	Rustington	...		340	359	360	434	616
	Climping	...		331	261	270	251	219
	Ford	...	...	82	73	100	102	94

Arundel Sub-district.	Tortington ...	112	138	165	288	452
	Lyminster (part of)	—	—	409	373	418
	Poling ...	203	174	179	178	200
	Angmering (part of)	—	—	135	131	152
	Patching ...	275	268	274	270	248
	Warningcamp ...	107	159	128	159	200
	Burpham ...	256	304	286	280	249
	South Stoke ...	111	108	133	131	117
	Houghton ...	165	189	196	174	162
Total ...		6716	7675	8025	8692	10,222
Excluding Wick ...		5915	6604	6847	7372	8809
Persons to a house		4.95	5.23	4.83	4.81	4.70

The chief occupation is agriculture, but a great many are also employed in fruit growing, or in cultivation of gardens.

NEW HOUSES.

Twenty-four houses and four flats were built during the year, distributed throughout the parishes as below :

Parish.			No. of Houses.			
			1906.	1907.	1908.	1909.
Durrington	...	...	15	6	3	5
Goring	...	...	—	1	1	—
Rustington	...	...	1	13	5	13
Tortington	...	...	—	—	—	—
Angmering	...	...	2	2	2	4
East Preston	...	...	2	6	1	5
Climping	...	...	—	—	—	1

BIRTHS.

The number of births registered in the district during 1909 was 132, 61 males and 71 females.

This is equivalent to a birth-rate of 20.19 per 1,000.

Of the births, 13 were illegitimate, forming 9.8% of the total births.

DEATHS.

The number of deaths registered during 1909 from all causes belonging to East Preston was 72, giving a death-rate of 11.4 per 1,000.

The total number of deaths registered in the Sanitary District of East Preston was 107, of these 50 were in Public Institutions, receiving sick persons from beyond the district, viz., 43 East Preston Union Workhouse; 3 at the Worthing Isolation Hospital, Swandean; and 4 at Millfield Convalescent Home, Rustington.

Of the 43 persons who died at the Workhouse 19 came from Worthing, 4 from Littlehampton sub-district, 2 from Arundel sub-district, 6 from Worthing sub-district, and 12 from other districts.

INFANTILE MORTALITY.

The deaths of infants under one year of age were 8, which is equivalent to a mortality of 61 per 1,000 births; there were no deaths registered of illegitimate children under one year of age.

The low infant mortality may be attributed to the absence of any outbreaks of Diarrhœa, Whooping Cough and Measles.

The Infantile Mortality in each of the Sub-districts during the past four years is shewn in the statement given below:—

		per 1000 births.
Infant mortality (the whole district) 1909	...	61
Infant mortality, England and Wales, Country		
Districts, 1909	...	98

	Births.	Deaths under 1 year, 1909.
Worthing Sub-District	46	5
Littlehampton Sub-District	51	2
Arundel Sub-District	35	1
	—	—
	132	8
	—	—

ZYMOTIC MORTALITY.

There was only two deaths registered from Zymotic disease, viz., one being Enteric Fever and the other Enteritis.

For four years past no deaths from Whooping Cough have been recorded and no deaths from Measles since 1901.

NOTIFIABLE DISEASES.

The number of notifications during 1909 was 33.

Diphtheria	...	...	...	3
Scarlet Fever	...	...	...	27
Erysipelas	...	...	...	1
Enteric Fever	...	...	...	1 fatal
Puerperal Fever	...	...	...	1 fatal
				<hr/> 33 <hr/>

DIPHTHERIA.

Three cases were notified, one at Patching, one at Salvington, and one at the East Preston Workhouse. The one at Salvington was removed to Swandean. All three patients recovered.

SCARLET FEVER.

Twenty-seven cases were notified as follows:—

13	at Goring.
7	„ Ferring.
3	„ Durrington.
1	„ Clapham.
1	„ Lyminster.
1	„ Rustington.
1	„ East Preston Workhouse.
<hr/> 27 <hr/>	

Of these 27 cases 20 were sent to Swandean.

The Schools at Ferring and Goring were closed owing to the prevalence of Scarlet Fever,

ENTERIC FEVER.

Only one case of Enteric occurred and it was fatal. The patient was a youth of seventeen years who contracted the disease through eating shell fish.

PUERPERAL FEVER.

There was one case of Puerperal Fever notified at Poling which ended fatally.

The administration of the Midwives Act is carried out by the West Sussex County Council.

Since the adoption of the Infectious Disease (Notification) Act, 1889, which came into operation on March 1st, 1891, a record of the cases notified each year has been kept, this is shown in the following statement.

No. of Year. cases.	No. of Year. cases.	No. of Year. cases.	No. of Year. cases.
1891 6	1896 66	1901 37	1906 13
1892 54	1897 37	1902 38	1907 36
1893 156	1898 80	1903 30	1908 29
1894 40	1899 69	1904 12	1909 33
1895 61	1900 72	1905 23	

The prevalence in each quarter of 1909 and in 1904-1908 of each notifiable disease is shown in the following table.

	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	1909	1908	1907	1906	1905	1904
Small Pox ...	—	—	—	—	—	—	—	—	—	—
Scarlet Fever...	2	1	12	12	27	10	1	1	13	8
Diphtheria ..	—	3	—	—	3	15	28	7	2	1
Enteric Fever	—	1	—	—	1	2	1	1	5	3
Puerperal Fever	1	—	—	—	1	—	—	—	1	—
Erysipelas ...	1	—	—	—	1	2	2	4	2	—
Totals ..	4	5	12	12	33	29	36	13	23	12

INFECTIOUS DISEASES HOSPITAL.

In the case of the Worthing Sub-Registration District, which includes the parishes of Clapham, Goring, Ferring and Durrington, and in which Swandean, the Worthing Corporation Hospital, is situated, arrangements have been made with that Council to admit to their hospital cases of infectious diseases from this sub-district.

In the remaining 14 parishes of East Preston outbreaks of infectious disease take their natural course.

OTHER DISEASES.

There was an outbreak of Chicken-pox amongst the scholars attending East Preston Church of England School during June and the School was closed on my certificate.

There was an outbreak of Measles amongst the scholars attending Warningcamp Church of England School and the School was closed on my certificate during June.

PULMONARY TUBERCULOSIS.

On January 1st, 1909, the Public Health (Tuberculosis) 1908 Regulations came into force.

It is compulsory under these Regulations for Poor-law Medical Officers and Superintendents of Poor-law Institutions to notify the Medical Officer of Health of all cases of Pulmonary Tuberculosis or Phthisis amongst poor persons coming under their charge.

No system of notification of Tuberculosis other than those coming under the Poor-law is in force.

There were 54 poor persons notified under the regulations as suffering from Pulmonary Tuberculosis. Forty-four were poor persons from outside the district (various London Poor-law Institutions) received into the Metropolitan Asylum Board's Convalescent Home, Rustington.

Ten were poor persons received into the Workhouse Infirmary, East Preston, from various parishes in connection with the Union.

WATER SUPPLY AND DRAINAGE.

The parishes of Warningcamp, Cross Bush, Burpham and a part of Poling are supplied with water from the mains of the Borough of Arundel.

Durrington is served by the Worthing Corporation water mains.

The remaining parishes derive their supply chiefly from shallow wells but in many cases where new property has been erected, bored wells have been constructed.

There is no main drainage system in the district. The mansions and larger class of houses are provided with water closets and drainage systems in connection with cesspools. A number of the cottages have privies but in many cases earth and pail closets are provided.

Of the 24 new houses erected during 1909 four in the parish of Durrington obtain their supply from the Worthing Corporation's main, one at Climping from the Littlehampton Council's main, and the remaining nineteen in the parishes named above from bored wells. Here a pure and wholesome supply, free from surface contamination can be obtained.

SCAVENGING AND CLEANSING.

Rustington is the only parish which is systematically scavenged.

FACTORY AND WORKSHOPS ACT, 1901.

Beyond inspecting the nine bakehouses in the district, no action has been taken during the year. The district is purely an agricultural one, and there are no important workshops within the district.

There is one underground bakehouse.

The name of one outworker was received during the year. The premises were visited and found in a sanitary condition.

There is no Common Lodging House in the District,

DAIRIES, COWSHEDS AND MILKSHOPS ORDER, 1885 AND THE CONTAGIOUS DISEASES ANIMALS ACT, 1878.

There are 21 Cowsheds in the district. These have been inspected during the year. They are, as required by the regulations, cleansed and limewashed as often as is necessary.

The Contagious Diseases Animals Act is carried out by the County Police.

ACTS AND BYELAWS IN FORCE WITHIN THE DISTRICT.

Infectious Disease Notification Act, 1889.

Infectious Disease Prevention Act, 1890.

Public Health Acts Amendment Act, 1890.

BYE-LAWS.

- 1 With respect to new streets and buildings (Urban Model)
- 2 Dairies, Cowsheds and Milkshops Regulations.

INQUESTS.

Inquests were held in four cases.

Parish to which each case belonged.	Sex.	Age.	Cause of Death.
Worthing Sub-district :			
Goring-by-Sea.	F.	3	Heart failure.
Goring-by-Sea.	M.	56	Heart failure.
Arundel Sub-district :			
Warningcamp.	M.	28	Suicide by placing himself before railway train.
Littlehampton Sub-district :			
Rustington.	M.	43	Suicide by throwing himself in front of a train.

SYSTEMATIC INSPECTION.

The following is a list of routine work during the year 1909, as recorded in the books of the Sanitary Inspector, Mr. Vail :

Premises visited	...	...	...	371
Nuisances reported...	...	...	...	17
Nuisances abated without notice	...	...	...	10
Nuisances abated after notice	...	...	...	7
Houses cleansed and limewashed	...	...	...	8
Houses disinfected	...	...	...	21
Water Certificates granted	...	...	...	25
Wells closed	...	...	...	0
Privies converted into earth closets	...	...	...	0
Drains relaid	...	...	...	3
New wells bored	...	...	...	0

BAKE-HOUSES.

There are nine bake-houses ; of these, one in the parish of Rustington is underground. Special attention is given to the cleanliness, lighting and ventilation.

These are inspected regularly.

TABLE 1.

Vital Statistics of Whole District during 1909 and Previous Years.

EAST PRESTON RURAL DISTRICT,

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.				TOTAL DEATHS IN PUBLIC INSTITU- TIONS IN THE DISTRICT.	Deaths of Non- Residents registered in Public Institu- tions in the District.	Deaths of Residents registered in Public Institu- tions beyond the District.	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.			
		Number.	Rate*	Under 1 Year of Age.		At all Ages.					Number.	Rate*	Number.	RATE.*
				Number.	Rate per 1000 births registered.	Number.	Rate*							
1	2	3	4	5	6	7	8	9	10	11	12	13		
1899	9,900	290	29.3	34	117	185	18.7	29	26	3	162	16.3		
1900	10,050	293	29.1	43	114	203	20.2	15	14	1	190	18.9		
1901	8,809	214	24.3	20	93	160	18.1	44	33	3	130	14.7		
1902	8,895	245	27.5	21	86	139	14.5	35	26	3	116	13.0		
1903	5,980	131	21.9	7	53	100	16.7	41	34	2	68	11.4		
1904	6,077	144	23.6	5	34.7	98	16.1	42	32	2	68	11.1		
1905	6,130	152	24.8	13	85.5	106	17.3	38	32	—	74	12.1		
1906	6,214	134	21.56	11	82	108	13.38	54	48	—	60	9.6		
1907	6,197	143	23.07	9	63	120	19.4	51	44	—	76	12.3		
1908	6,200	138	22.26	10	72	86	13.87	37	37	—	49	7.9		
Averages for years. 1899-1908		The	district	has	been so altered	that the	averages	are of	no value					
1909	6,300	132	20.19	8	61	107	17.0	50	38	3	72	11.4		

* Rates in Columns 4, 8, and 13, calculated per 1,000 of estimated population.

NOTE.—The deaths included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term “Non-residents” is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term “Residents” is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The “Public institutions” taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums. A list of the Institutions in respect of the deaths in which corrections have been made is given below.

Institution within the District receiving sick and infirm persons from outside the District.	Institutions outside the district receiving sick and infirm persons from the District.
Swandean, Worthing Isolation Hospital. East Preston Union Workhouse. Mill-Field Convalescent Home (M.A.B.), Rustington.	County Asylum, Chichester.

Area of District in acres
(exclusive of area
covered by water). } **27,751.**

Total Population at all ages
Number of inhabited houses
Average number of persons per house

8,809
1,874
4.7 } At Census
of 1901.

TABLE II.

East Preston Rural District.

Vital Statistics of Separate Localities in 1909 and previous years.

NAMES OF LOCALITIES	1.—Whole District.				2.—Worthing Sub-District.				3.—Littlehampton Sub-District.				4.—Arundel Sub-District.			
	Population estimated to middle of each year	Births registered	Deaths at all ages	Deaths under 1 year	Population estimated to middle of each year	Births registered	Deaths at all Ages	Deaths under 1 year	Population estimated to middle of each year	Births registered	Deaths at all Ages	Deaths under 1 year.	Population estimated to middle of each year	Births registered	Deaths at all Ages	Deaths under 1 year.
1899	9900	290	162	34	4000	117	74	20	3745	109	65	12	2155	64	23	2
1900	10050	298	190	43	4092	119	71	21	3782	112	78	15	2176	62	41	7
1901	8809	214	130	20	4184	105	66	6	2427	57	35	5	2198	52	29	9
1902	8895	245	116	21	4265	120	58	11	2450	67	31	3	2180	58	27	7
1903	5980	131	68	7	1599	39	20	4	2490	50	25	2	1900	42	22	1
1904	6077	144	68	5	1583	45	22	2	2530	71	31	2	1964	28	15	1
1905	6130	152	74	13	1585	41	15	2	2567	71	33	10	1990	40	26	1
1906	6214	134	60	11	1600	48	15	4	2600	51	26	4	2014	35	19	3
1907	6197	143	76	9	1524	46	19	4	2635	61	32	2	2038	36	25	3
1908	6200	138	49	9	1527	44	17	2	2635	53	17	6	2038	41	15	2
Averages of Years, 1899 to 1908.		The	district		has	been	so altered		that	the	averages		are of no value.			
1909	6300	132	72	8	1567	46	23	5	2665	51	32	2	2068	35	17	1

TABLE III.

East Preston Rural District.

Cases of Infectious Disease notified during the Year 1909.

NOTIFIABLE DISEASE.	Cases Notified in whole District.					Total Cases Notified in each Locality.				Number of Cases removed to Hospital from each Locality.			
	At all Ages.	At Ages—Years.					Worthing Sub-District	L'hampton Sub-District	Arun del Sub-District	Worthing Sub-District	L'hampton Sub-District	Arun del Sub-District	Total cases re-moved to Hospital
		Un-der 1	1 to 5	5 to 15	15 to 25	25 to 65								65 and upwards
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria including Membranous croup)	3	...	2	1	...	1	1	1	1	...	...	1	...
Erysipelas	1	...	...	1	...	...	1	1	...	...	...	...	...
Scarlet fever	27	...	18	4	...	24	3	...	...	20	...	20	...
Typhus fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric fever	1	...	...	1	...	...	1	...	...	...	...	...	...
Relapsing fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal fever	1	...	...	...	1	...	...	1	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	33	...	20	7	1	25	6	2	21	...	...	21	...

NOTES.—The localities adopted for this table are the same as those in Tables 2 and 4.

Isolation Hospital—"Swandean," Durrington.
Total available beds—32

Number of Diseases that can be concurrently treated—3

TABLE IV.

East Preston Rural District.**Causes of, and Ages at, Death during Year, 1909.**

CAUSES OF DEATH.	Deaths at the subjoined Ages of "Residents" whether occurring in or beyond the District						
	All Ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards
	2	3	4	5	6	7	8
Small-pox	...	...	...	..	...	...	...
Measles	...	...	...	...	..	...	...
Scarlet fever	..	...	...	...	...	...	...
Whooping-Cough	...	...	...	..	...	...	...
Diphtheria (including Membranous croup)	...	...	...	...	...	...	...
Croup	...	...	...	...	...	..	...
Fever } Typhus	...	...	...	...	...	...	...
	1	...	...	...	1	...	...

Other continued	...	...	...	...	...	...	...
Epidemic influenza	1	1	...	...	...	...	...
Cholera	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...
Diarrhœa	...	...	...	...	...	...	...
Enteritis	1	1	...	...	...	..	...
Puerperal fever	1	...	...	..	...	1	...
Erysipelas	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis)	6	...	1	...	1	4	...
Other tuberculous diseases	1	1	...	..	..	...	...
Cancer, malignant disease	7	...	..	...	...	2	5
Bronchitis	7	...	...	...	...	...	7
Pneumonia	4	1	...	...	...	...	3
Pleurisy	...	...	...	...	...	...	...
Other diseases of respiratory organs	...	...	...	...	..	...	...
Alcoholism	1	...	...	...	..	...	1
Cirrhosis of liver }	...	...	...	...	..	...	...
Venereal diseases	...	...	...	...	..	...	...
Premature birth	3	3	...	..	..	...	...
Diseases and accidents of parturition	...	..	...	...	...	..	...
Heart diseases	7	...	1	1	..	3	2
Accidents	...	...	...	...	...	...	...
Suicides	2	...	...	...	...	2	...
All other causes	30	1	1	...	1	5	22
All Causes	72	8	3	1	3	17	40

TABLE IV (Continued).

Deaths at all Ages of "Residents" belonging to Localities whether occurring in or beyond the District.			Total Deaths whether of "Residents" or "Non-Residents" in Public Institutions in the District
Worthing Sub-District.	Littlehampton Sub-District	Arundel Sub-District.	
9	10	11	16
...
...
...
...
...	...	...	3
...
...
...
...	1	...	...
...
1	...	...	..
...
...
...
1	...	..	..
...	...	1	..
...
2	3	1	11
...	...	1	.
1	5	1	2
2	1	4	1
2	2	...	2
...
...
1	...	...	1
...
2	1	..	...
...
3	1	3	...
...
...	1	1	...
8	17	5	30
23	32	17	50

TABLE V (Continued).

INFANTILE MORTALITY DURING THE YEAR, 1909.

[illegible]

Population	
Estimated to middle of 1909	6,300
Deaths in the (legitimate infants...	8
year of (illegitimate infants	0

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